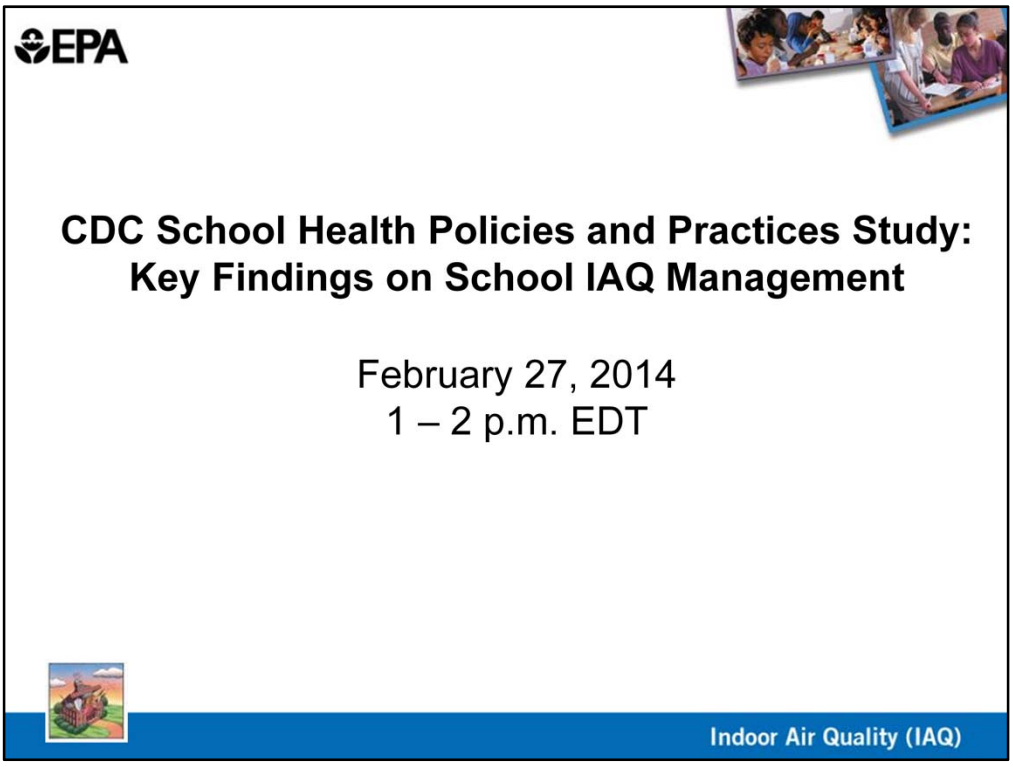
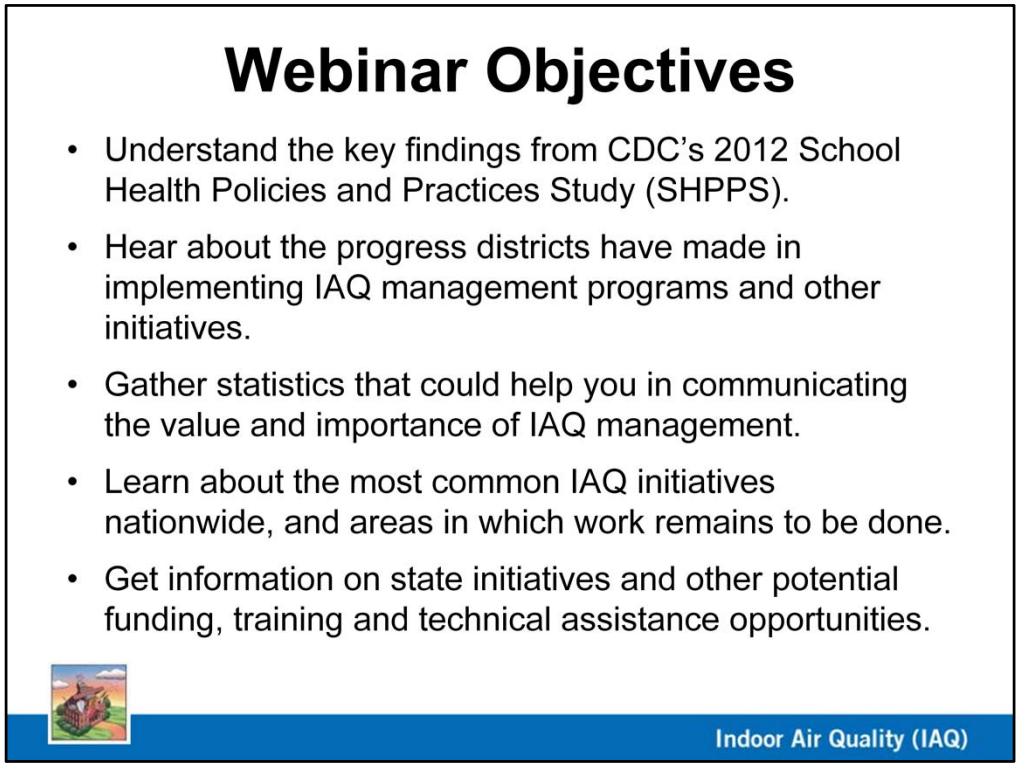


BRENDA DOROSKI:
Thank you and welcome, everyone. We're very pleased to have you join us here today on the webinar.

BRENDA DOROSKI:
OK, so let me give a few introductions here. Again, I'm Brenda Doroski. I'm the director of the Center for Asthma in Schools in the Indoor Environments Division of the U.S. EPA, and we are very excited to have joining us today Sherry Everett Jones, a Health Scientist with the U.S. Centers for Disease Control and Prevention.

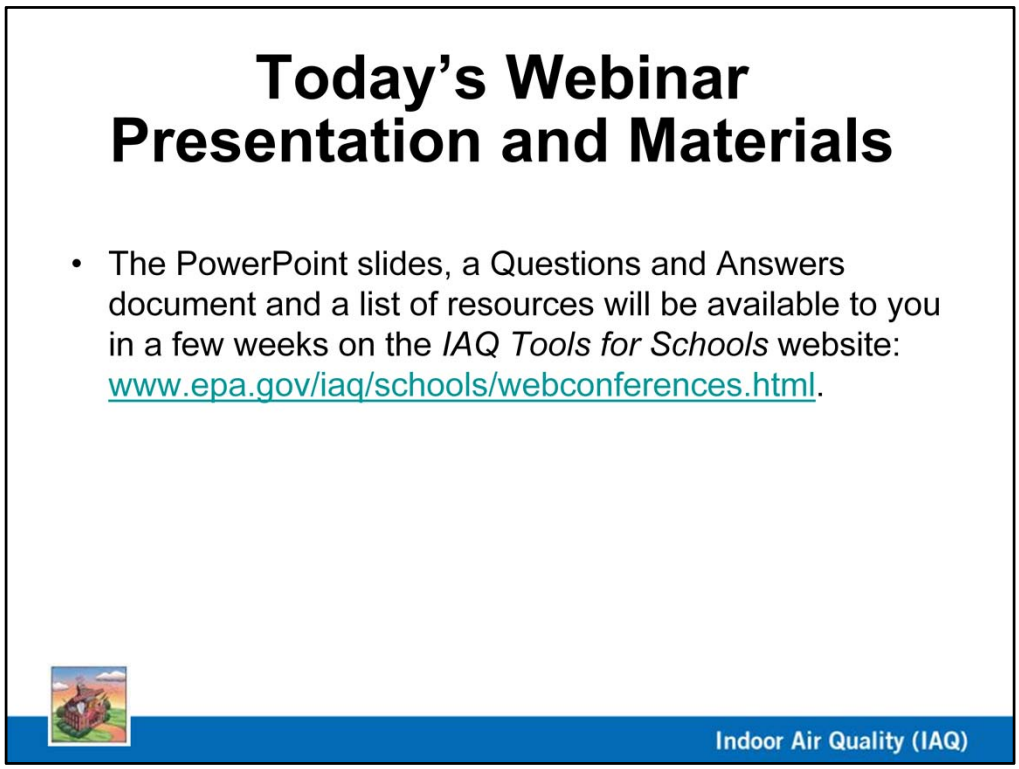
Sherry has, since 1996, she's worked as a health scientist in the Division of Adolescent and School Health at the Centers for Disease Control and Prevention. She's authored nearly 100 peer-reviewed scientific articles and CDC reports, and her work primarily focuses on the use of school-based research to measure both adolescent risk behaviors and health-promoting school policies and practices, the influence of school and community design on health and academic achievement, and also on the role of law in promoting the public's health. So, Sherry has a wide range of experiences. She is a lawyer. She has her PhD. She has her Master's in Public Health; just extremely qualified and lots of great experience. We are very excited that she's joining us here today, specifically to share the results from CDC's 2012 School Health Policies and Practices Study.



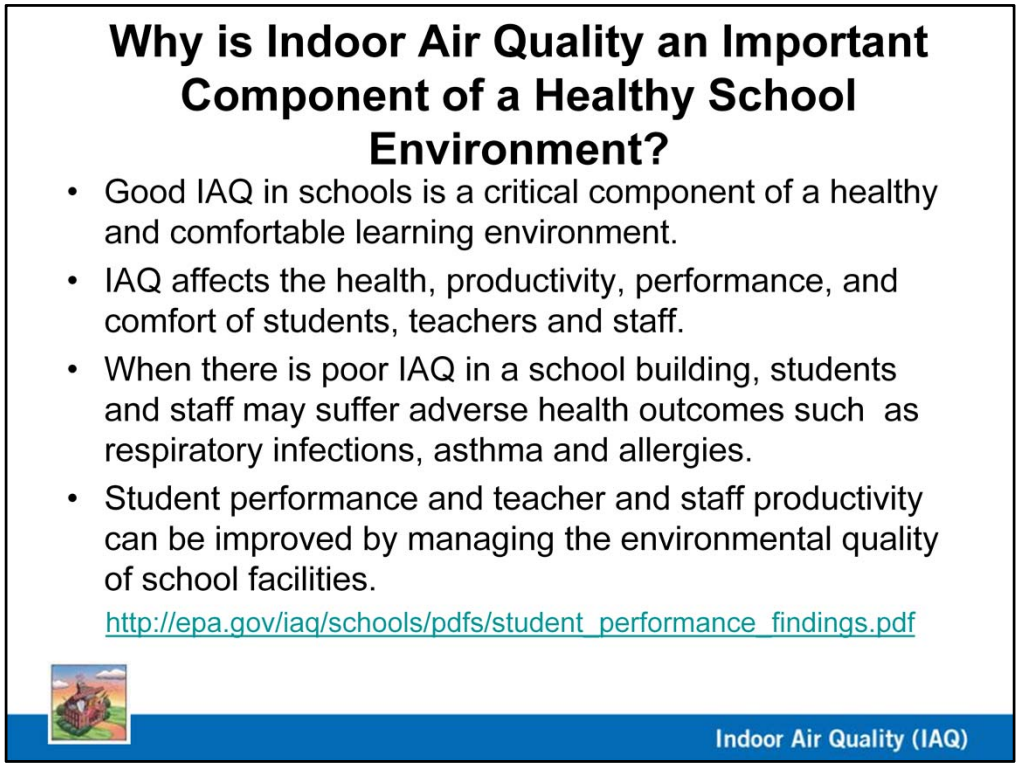
BRENDA DOROSKI:
Today, you're going to be hearing about the progress that districts all across the country have made in implementing the Indoor Air Quality Management program, and other programs and initiatives to improve the health or the environment of schools. You'll also have an opportunity to really gather some statistics that can help you in communicating the value and importance of indoor air quality management in your district to your superintendent, to your principals, to parents and others in your community.

You will have an opportunity to learn about the most common indoor air quality initiatives that are being implemented nationwide, and also hear about what are—what else needs to be done. Where are the gaps and what work remains to be done.

Some of the other information you'll be getting today will help you understand what's happening at the state level and where you can turn for additional resources, perhaps funding, training, some technical assistance that can help you either start, expand or maintain a successful Indoor Air Quality Management program.



BRENDA DOROSKI:
As I mentioned, today's webinar presentation materials and questions and answers will all be available to you on the *Indoor Air Quality Tools for Schools* website. They will be up in a couple of weeks, and we will send you an announcement when they are posted.



BRENDA DOROSKI:
Before we get started and I turn this over to Sherry, I just want to talk a little bit about why indoor air quality is an important component of a healthy school environment. You all know that children spend more time at school than any other place except their home.

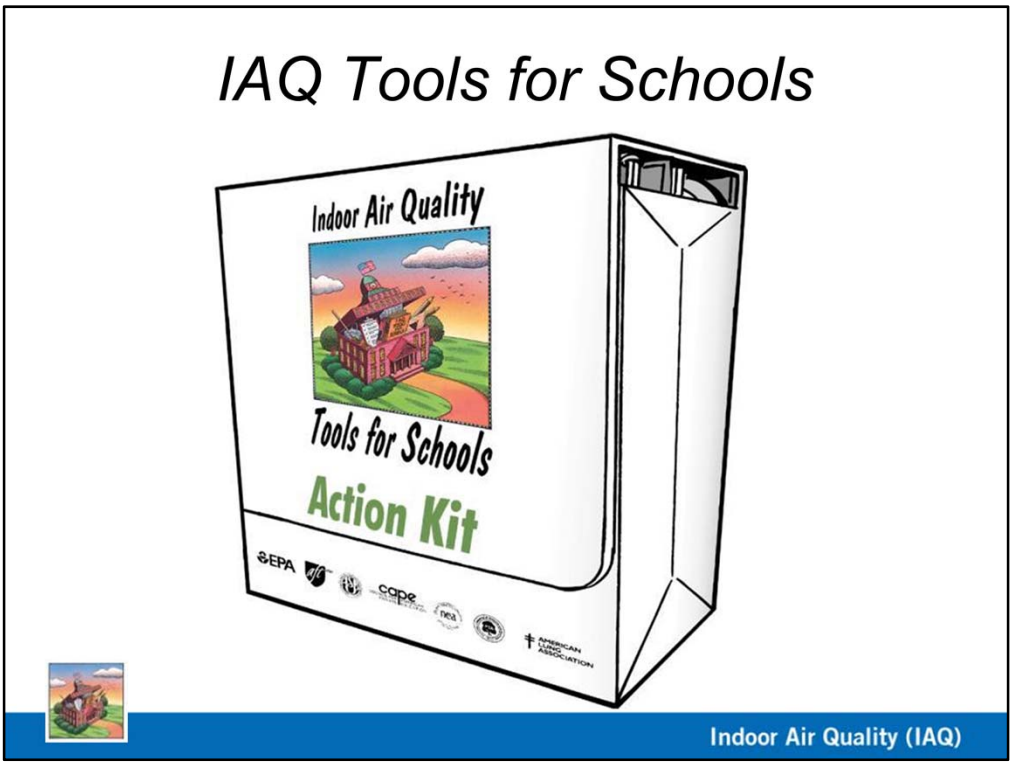
Studies have found that indoor air quality problems in our nation's schools are widespread. EPA has been working since the mid-1990s to provide guidance, outreach and technical assistance to support states and school districts to really promote the adoption of Indoor Air Quality Management plans to correct and prevent such problems.

In a few minutes, you'll be hearing from Sherry about the data from the 2012 Centers for Disease Control School Health Policies and Practices Study which really—which indicates that nearly half of the school districts in the United States are implementing indoor air quality management programs to protect the health of students and staff. The majority of these are based on EPA's *Indoor Air Quality Tools for Schools* guidance.

EPA is actively working with national, state and local nonprofit organizations to reach the other half of the nation's schools that haven't yet adopted Indoor Air

Quality Management programs, to create a healthy learning environment for all students and staff. We know that good indoor air quality in schools matters. Studies have shown that IAQ problems in schools such as mold, moisture, irritants, allergens and toxic pollutants are associated with respiratory diseases including asthma.

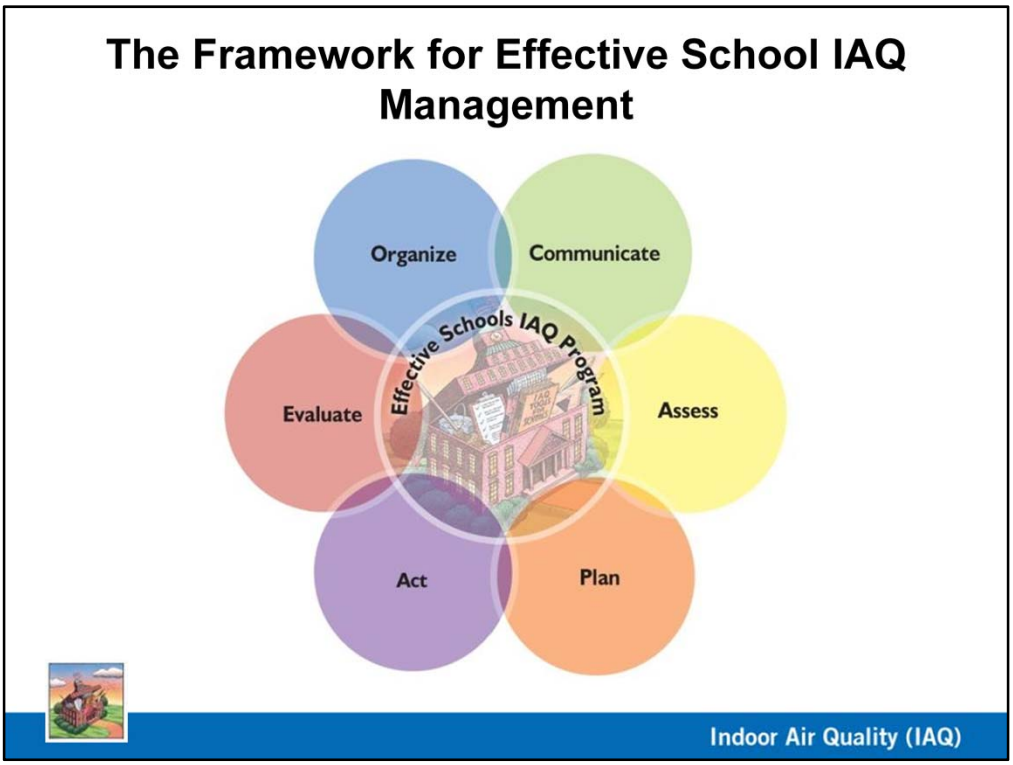
We know that one in 10 school-aged children has asthma, and approximately 10.5 million school days are missed each year in the United States due to asthma. Studies have also shown that students in classrooms that have good air ventilation rates achieve higher scores on standardized tests in math and reading than students in poorly ventilated classrooms. You can learn more about how student performance, and teacher and staff productivity, can be improved by managing the environmental quality of school facilities on our website.



BRENDA DOROSKI:
I'd like to take just a few minutes to review the EPA *Indoor Air Quality Tools for Schools* guidance that I was just referencing. This guidance and resources are available to you if you manage the indoor air quality in the schools in your community.

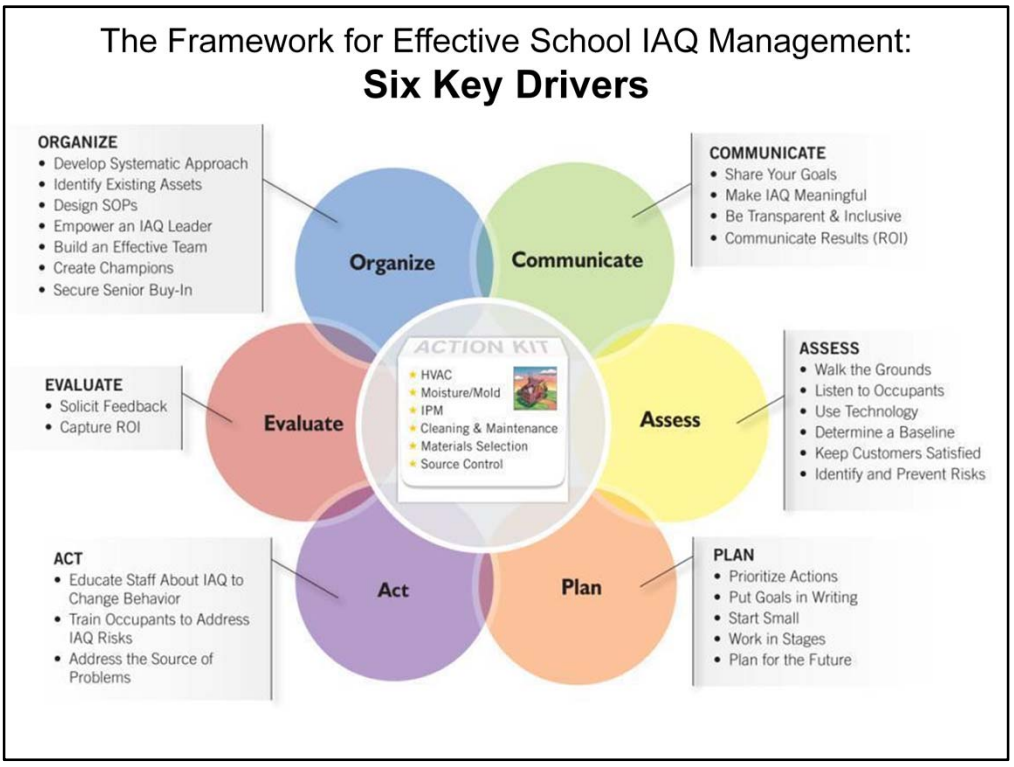
The action kit was first published back in the 1990s, but it's been updated. We've added to it. We've really refined it and included more and more of the best practices that we are seeing that many of you are implementing around the country. So in addition to the best practices, it provides walk-through checklists, industry guidelines, sample policies and sample IAQ Management plans to help schools and school districts take immediate action to implement effective Indoor Air Quality Management programs.

The *Indoor Air Quality Tools for Schools* program has been implemented successfully in tens of thousands of schools nationwide. I've already highlighted the important improved health outcomes and performance of students and staff, but I'd also like to mention that implementation of this guidance can also improve facilities and provide significant cost and time savings for maintenance and custodial services, better performance and durability of HVAC systems and, in general, have a positive impact on the physical school environment.



BRENDA DOROSKI:
EPA organized the knowledge in the guidance into a framework of proven solutions. This framework for effective school IAQ management is really a lifecycle and it provides a common language to describe what drives the Indoor Air Quality program's success. It provides detailed guidance on the proven strategies, organizational approaches and leadership styles that are fundamental to program effectiveness.

Finally, it presents a clear vision of the pathway to school indoor air quality excellence. This is a highly flexible and adaptable structure that allows any school, regardless of location, size, budget or condition, to use the framework to launch, reinvigorate and sustain an effective Indoor Air Quality Management program.



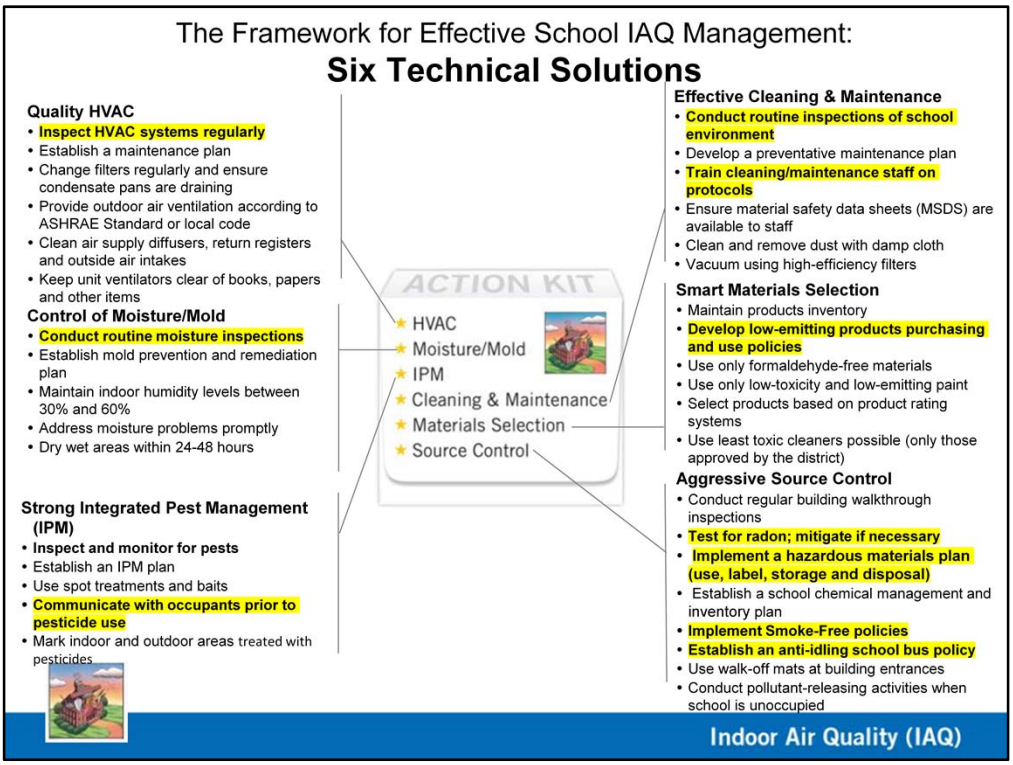
BRENDA DOROSKI:
By applying this cycle of continuous assessment, planning and action evaluation, the six key drivers work together to deliver effective school IAQ Management programs. We know that we are doing this to protect humans from poor indoor air quality. Humans are also at the root of each of these six technical elements.

The way in which we design, maintain and interact with buildings impacts how buildings in turn affect the health and productivity of the building occupants. Therefore, humans can be both part of the problem and part of the solution. However, with education and tools such as the framework and the action kit, everyone can be a steward of the indoor environment in school.

You will see here the six key drivers: organizing your program and communicating with everyone all the time; assessing your school's indoor air quality environment and how occupants are doing continuously; planning your short- and long-term actions based on your assessments and other important factors; acting to solve or prevent IAQ problems and address structural, institutional and behavioral issues; and evaluating your results and the impact of your program for continuous improvement.

I think that you'll agree that these seem pretty basic, but by putting them all

together it really gives you in one place all of the drivers you need to implement an effective program. It is a great way to be able to really educate your entire team, school and entire school district on what you are trying to achieve and how you are achieving it.

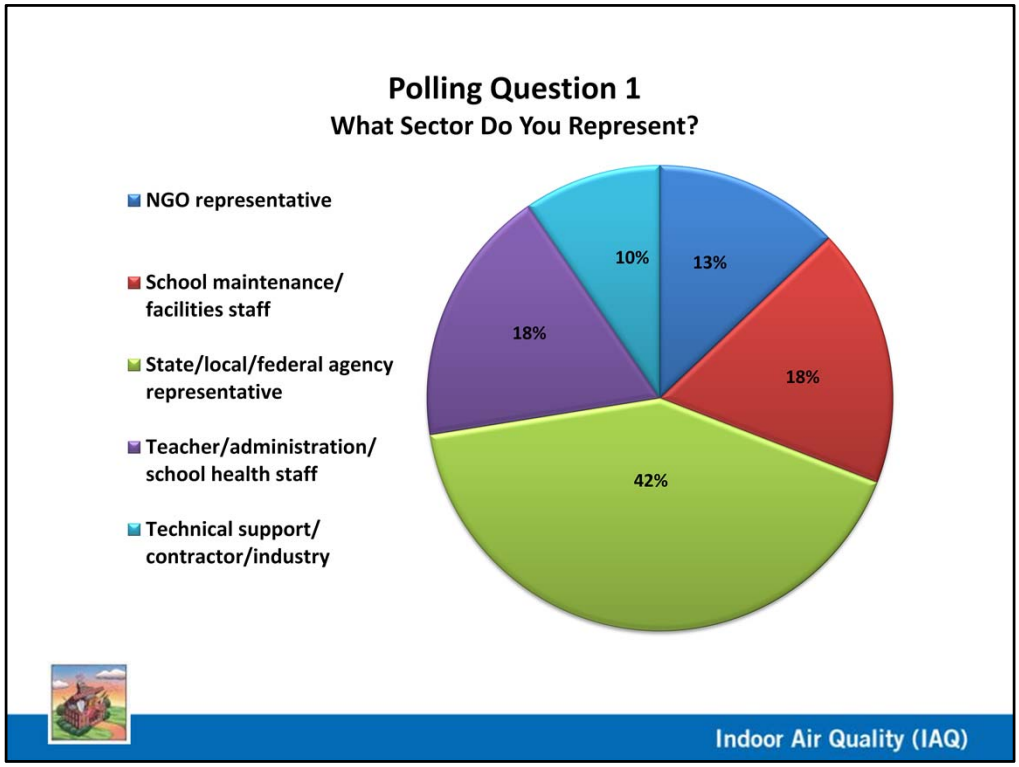


BRENDA DOROSKI:
In addition to the framework, the action kit offers six technical solutions, and all of which are addressed in the CDC School Health Policies and Practices Study that you will be hearing about in just a minute. The first is to ensure quality inspection, operation and maintenance of your HVAC system. You will be hearing from Sherry about the numbers of school districts around the country that have indicated that they are regularly inspecting their HVAC systems.

The second is active, aggressive control of moisture and mold. You'll be hearing about how many of these school districts are routinely conducting moisture inspection. These are just some of the ones that I've highlighted that you'll be hearing about from the CDC study. There's probably a few more in there, these are just a few I wanted to highlight.

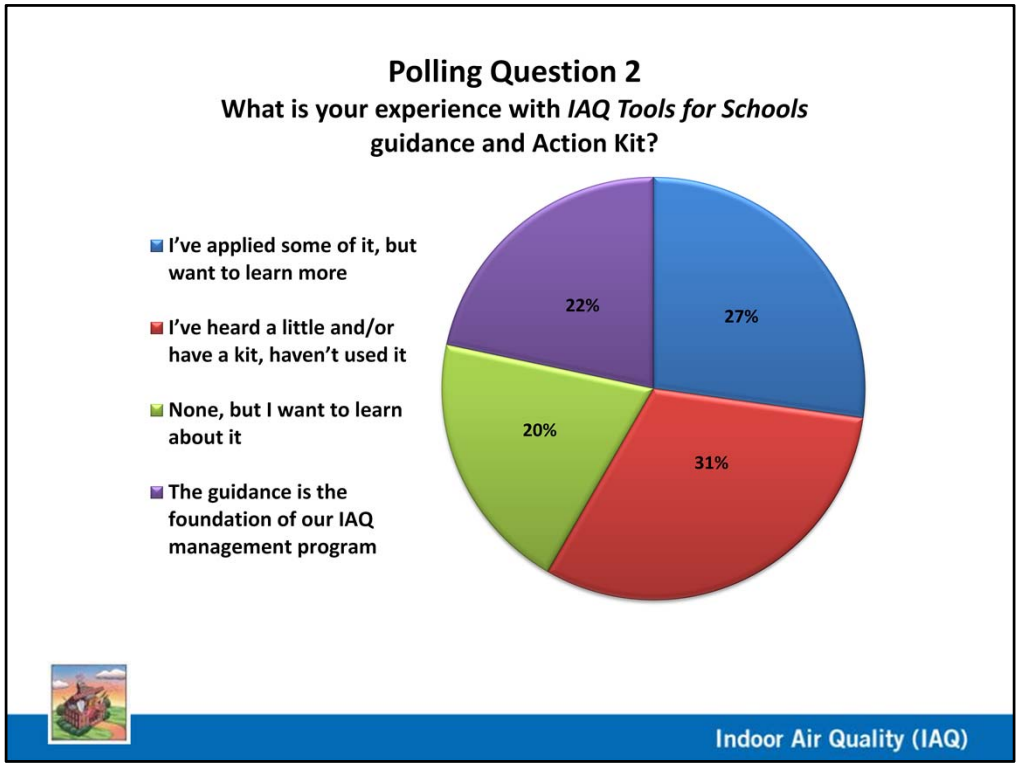
The third solution is strong, integrated pest management. The fourth solution is effective and consistent cleaning and maintenance activities, including routine inspections and doing training for your cleaning and maintenance staff as well as providing protocols. The fifth one is smart, low-emitting, low-toxicity material selection. The sixth is aggressive source control. For example, through anti-idling school bus policies, radon testing or proactively managing your school's chemical inventory, all of which you'll be hearing about in a few minutes.

EPA is also currently in the process of adding a new technical solution, connecting and addressing energy efficiency in the healthy indoor environment during school building upgrades. That guidance will be out in a few months and we are excited to be working with our Energy Star colleagues to complete that guidance and have it out to you all in a couple of months.



BRENDA DOROSKI:
Before we get started, we would like to take a quick polling question, just so we can better understand our audience and who is on the call today. If you could take a minute and please indicate which sector you represent. Are you part of the school maintenance facility staff? Perhaps you're a teacher, administration or school health staff. Or maybe you are a state, local or federal agency representative or a technical support contractor industry for one of our NGO representatives.

So we've got almost all of you voting. We'll give it maybe 10 or 15 more seconds. We will close out the pool and see who we have with us on the call today. It looks like we have a lot of state, federal and local agency representatives. That is terrific. Since we'll be sharing a lot of information I think is really relevant to state programs. Thank you.



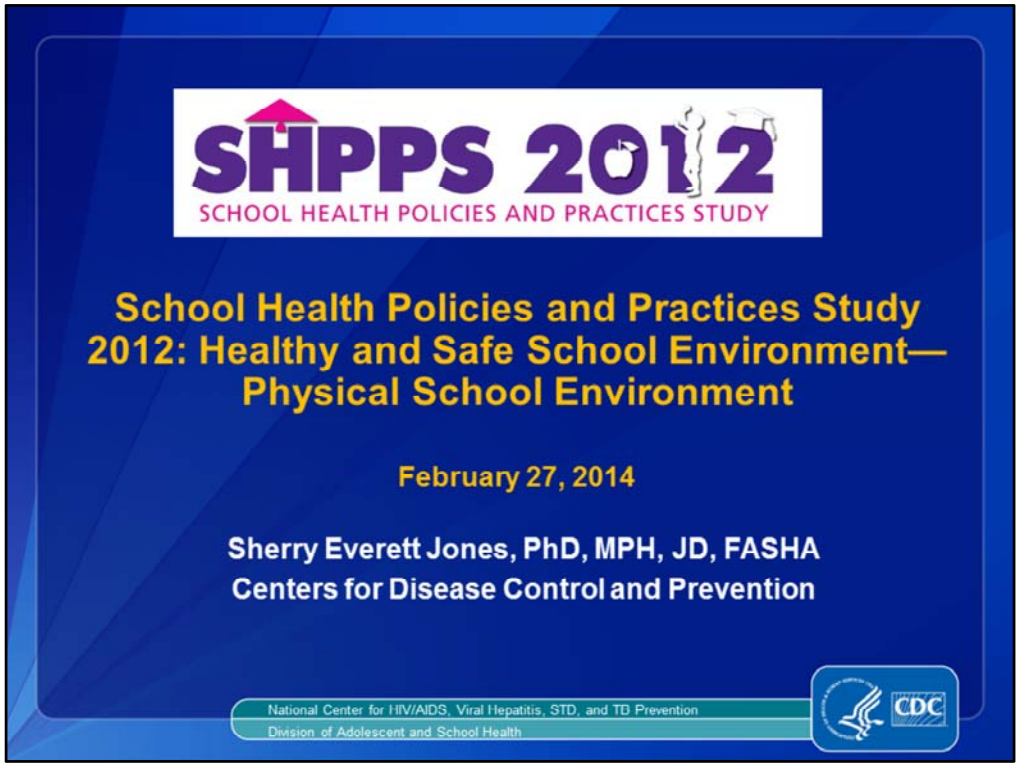
BRENDA DOROSKI:
I am going to ask one more polling question to get a feel for your experience with the *Indoor Air Quality Tools for Schools* Guidance and Action Kit. As we open up the poll we are going to ask you if you could let us know if you have heard about the kit or if you have not yet heard about the kit and want to learn more about it. I think we will probably have you folks that have applied for the kit and it could even be the foundation of their program.

We will give it about 10 more seconds and give everybody a chance to complete the poll. Wow, this is pretty amazing. What we are seeing so far is an even split. I think you can go ahead and close out the poll. Again, it looks like we've got some folks on the line that are not familiar with it but they are definitely going to learn more about it. We have some folks that have heard a little bit about it but haven't yet used it. Our hope is that after the webinar today and after you've seen what the school districts are doing all across the country, you will go back to the guidance in the kit and really use it as a resource to start a program in your school district.

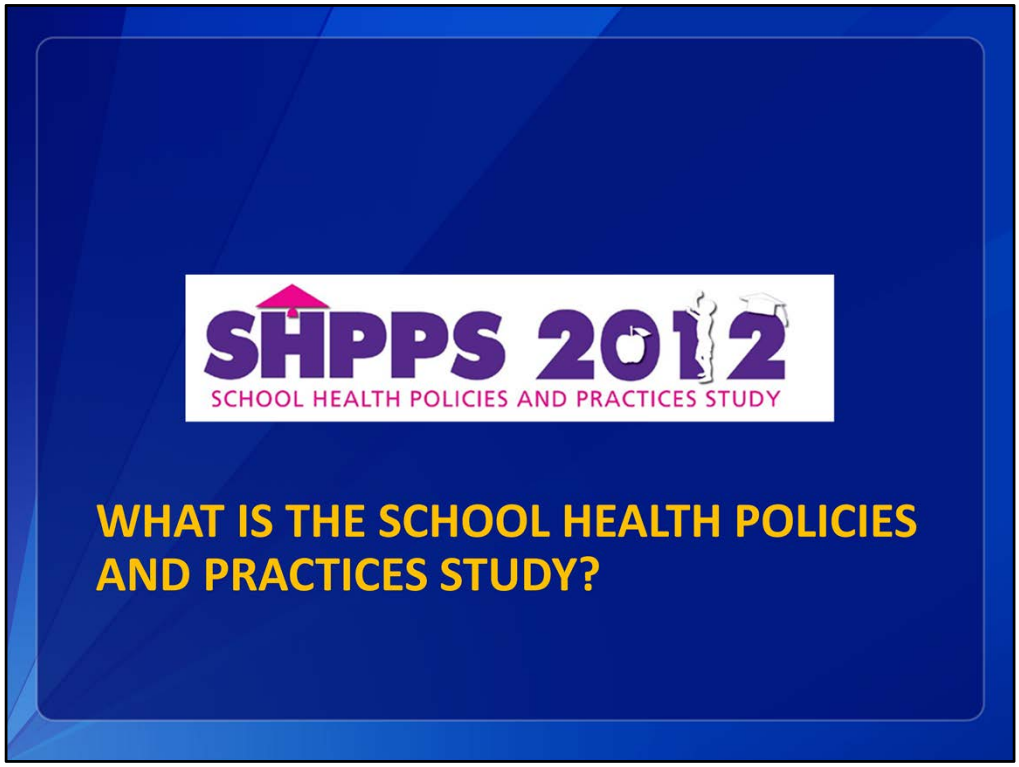
Another quarter of you have applied some of it but want to learn more. I am glad to see also about a quarter of you that are using the guidance as the foundation of your IAQ Management program. We really hope we can use some of your experiences with the kit and share that with the others on the call. So that is

terrific. Thank you very much for responding to those polls.

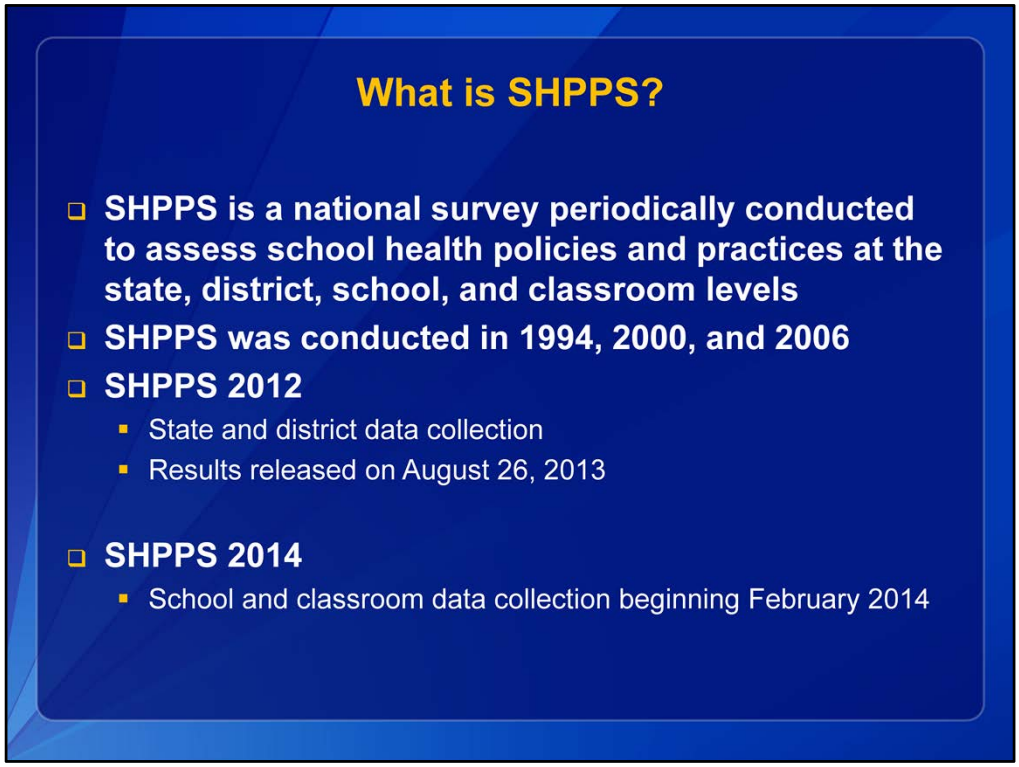
At this time, I am going to go ahead and turn it over to Sherry who is going to walk us through the work that she's done here with CDC on the study and the findings. Sherry, I'll turn it over to you.



SHERRY EVERETT JONES:
Thank you, Brenda, and thanks to everyone who signed on to hear about the School Health Policies and Practices Study. We here at CDC affectionately refer to it as SHPPS. I will probably fall into that lingo as I go.

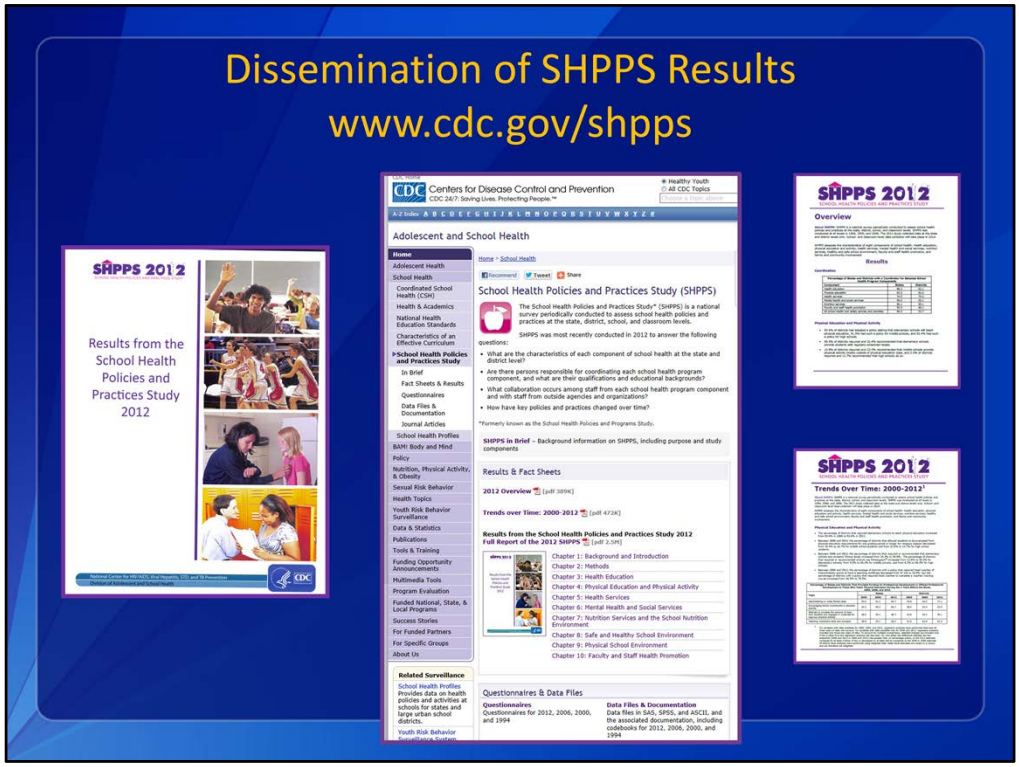


SHERRY EVERETT JONES:
I'll start off by describing the study with a little bit about the study methods and then jump right into some results.

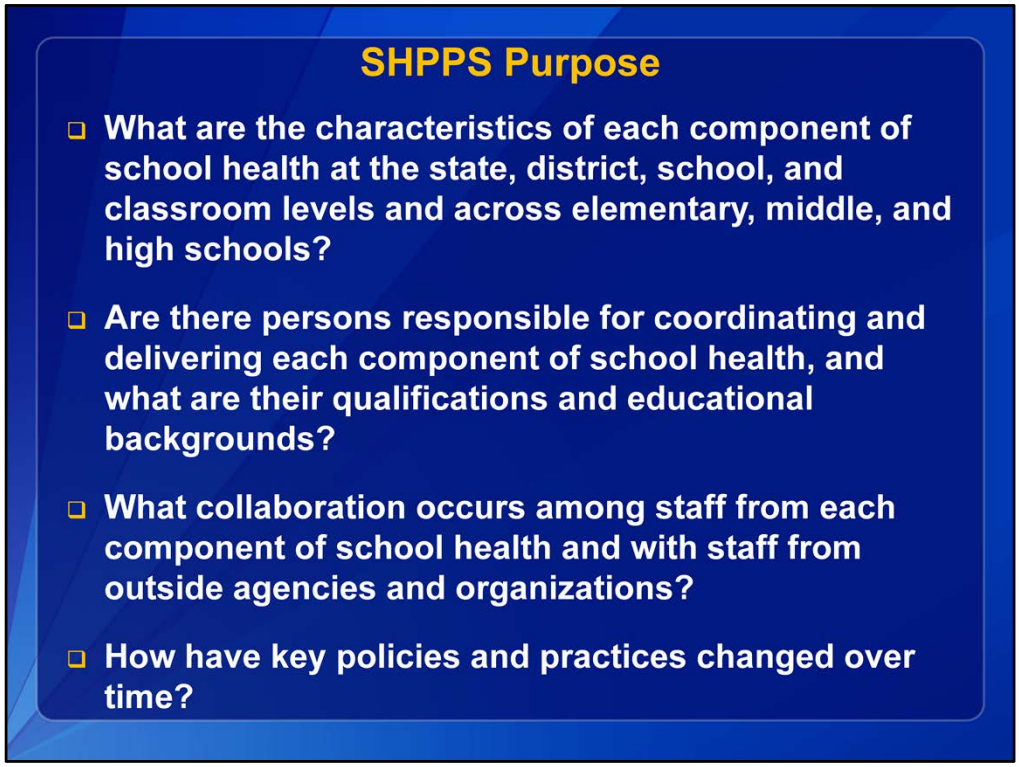


SHERRY EVERETT JONES:
SHPPS is a national survey periodically conducted to assess School Health Policies and Practices at the state, district, school and classroom levels, and has been conducted in 1994, 2000 and 2006. In our most recent administration in 2012, we collected state and district data and that is what I'll be presenting today. I just want to emphasize that what I'm presenting today are state and district policies and practices. These are actions states and districts take that can promote or require schools to engage in specific activities.

Soon, we will have a better idea of what schools are actually doing, and that is with our school and classroom data collection, and that began this month. So probably next summer, those data will be released.

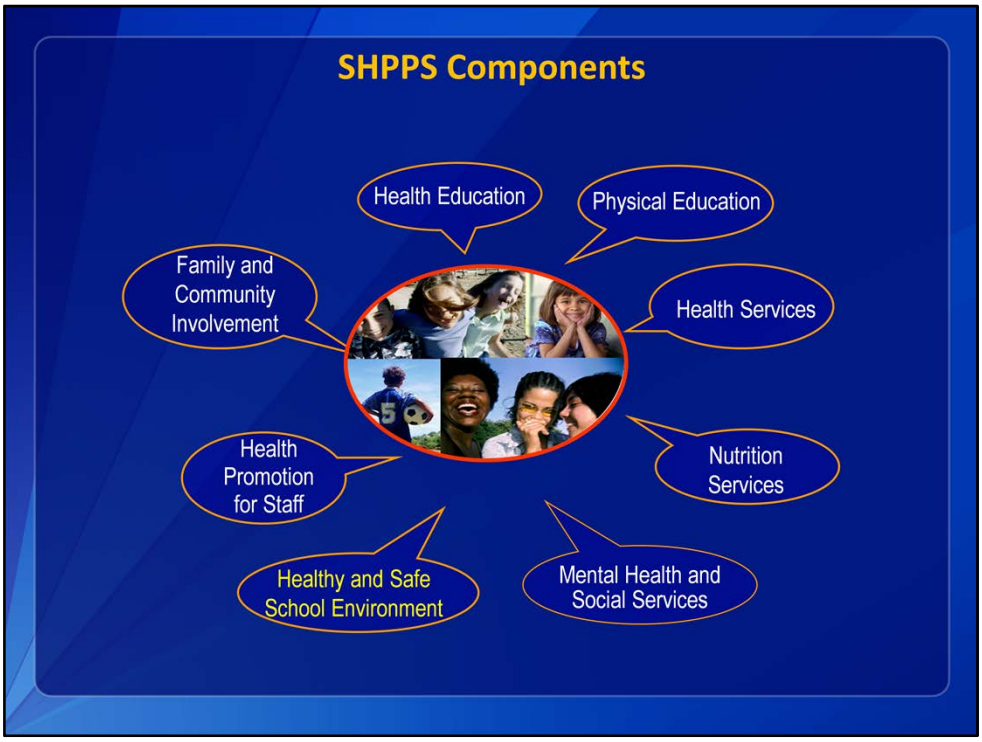


SHERRY EVERETT JONES:
This next slide gives you the SHPPS Web address and then a screenshot of our SHPPS home page. This is really a great place to go. On this website, we have our full report, some fact sheets and we are continually working on getting more posted. We have a whole bunch more in the works right now. This is really such a huge study with so much data that even with my 20 minutes focusing on one small area, I can just barely scratch the surface. There is so much to share with SHPPS. We really want folks to know about it and take advantage of all the great data that are in there. Please visit our website:



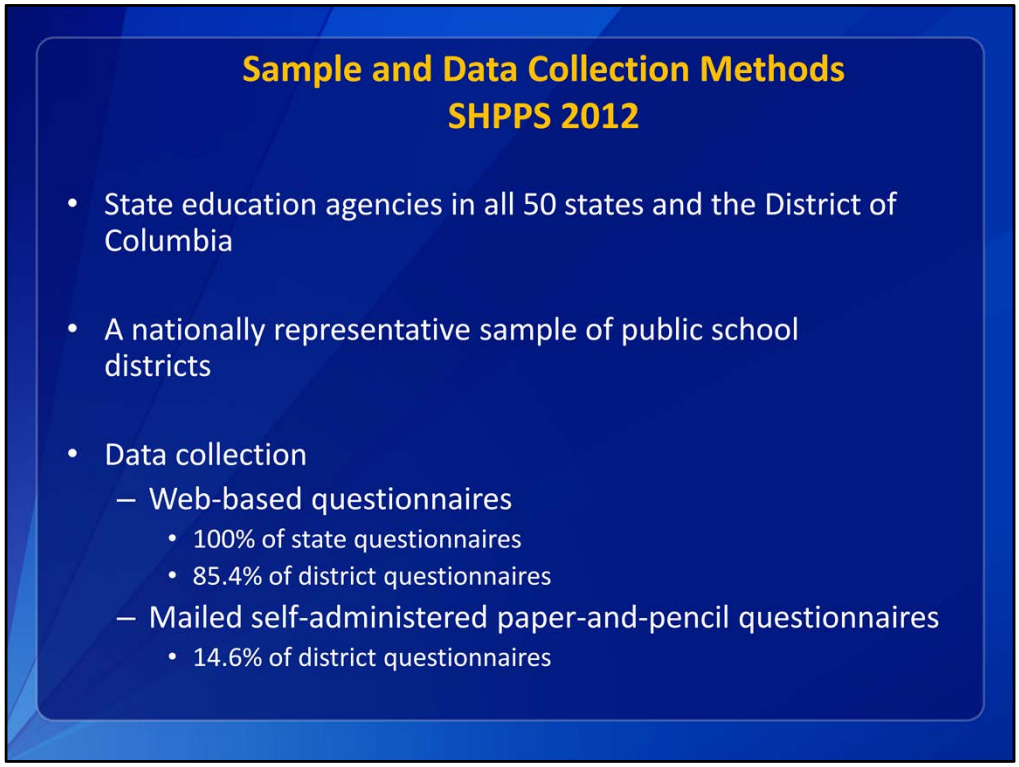
SHERRY EVERETT JONES:
SHPPS was designed to help answer four questions and they are listed on this slide here. The first is, What are the characteristics of each component of school health at the state, district, school and classroom level and across elementary, middle and high schools? The second is, Are there persons responsible for coordinating and delivering each component of school health? What are their qualifications and educational background?

The third is, What collaboration might occur among staff from each component of school health and with staff from outside the agencies and organizations? Finally, How have key policies and practices changed over time?

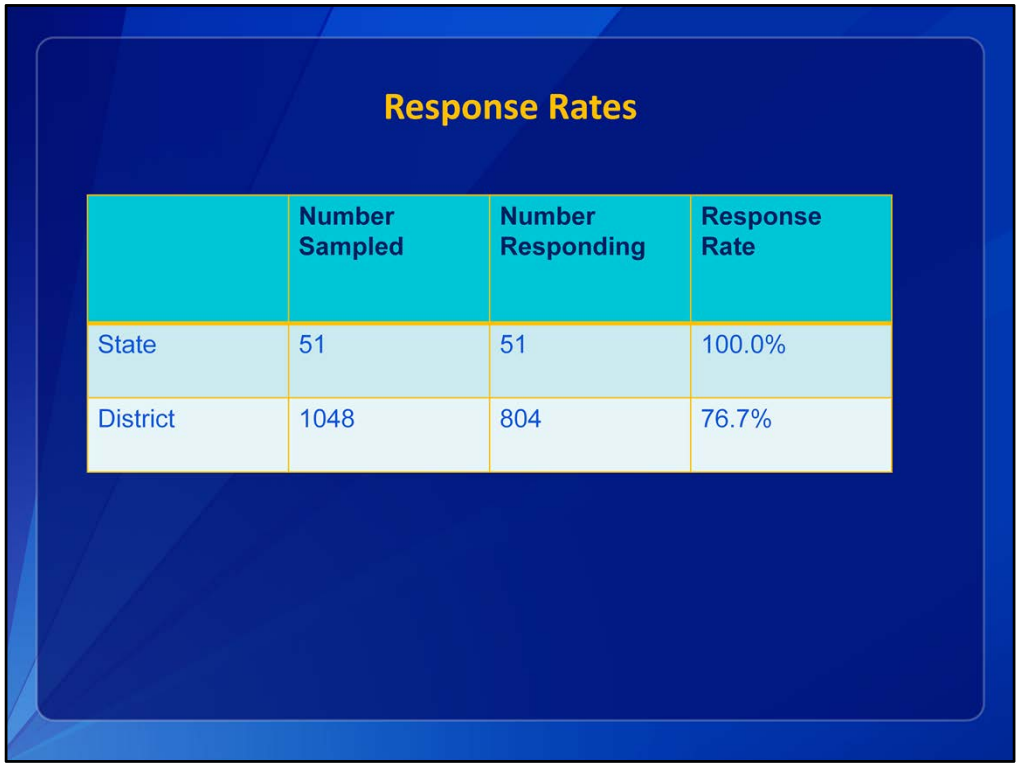


SHERRY EVERETT JONES:

SHPPS is designed to assess the eight components of coordinated school health that you see here on this slide. Health education, physical education, health services, nutrition services, mental health and social services, family and community involvement, health promotion for staff, and finally, healthy and safe school environments. That is where I will focus my time today, because that's where we find our indoor air quality-related data.

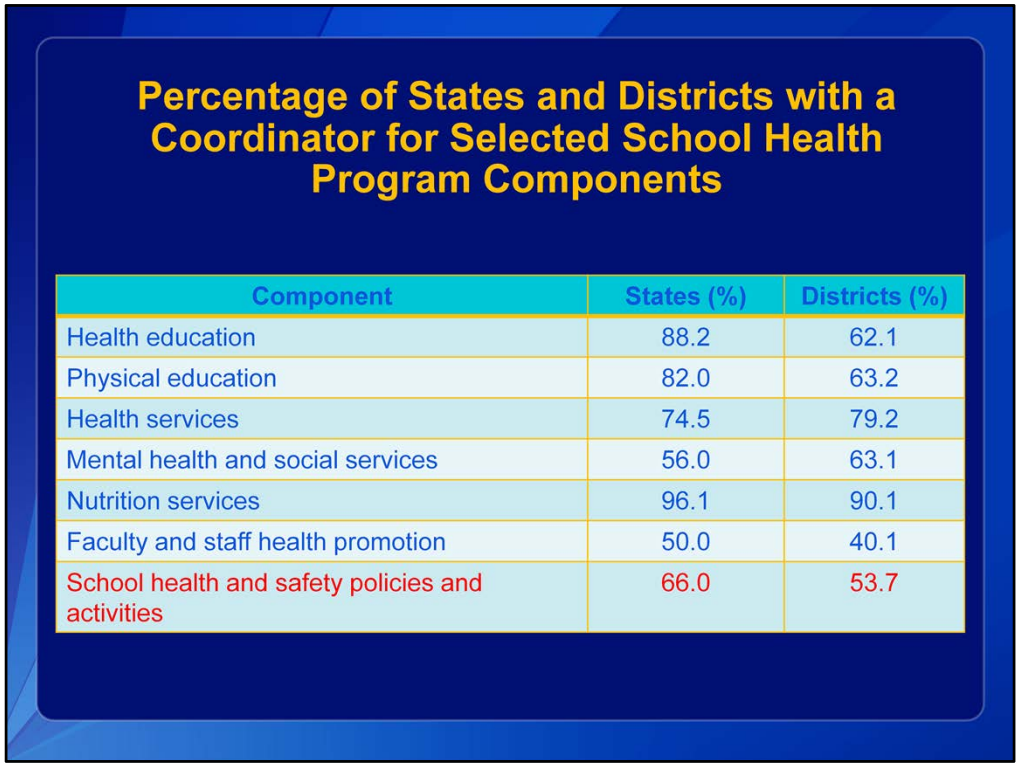


SHERRY EVERETT JONES:
In 2012, we surveyed all 50 state education agencies and the District of Columbia, and I'll just refer to D.C. as a state for future reference. We also collected data from a nationally representative sample of public school districts. We collected most of the data using Web-based questionnaires. To increase our response rate, we also mailed respondents paper and pencil questionnaires and allowed them to complete those and mail them back. By the end of the data collection period, all state questionnaires were completed using the Web-based system, and almost all—85 percent of the district questionnaires.



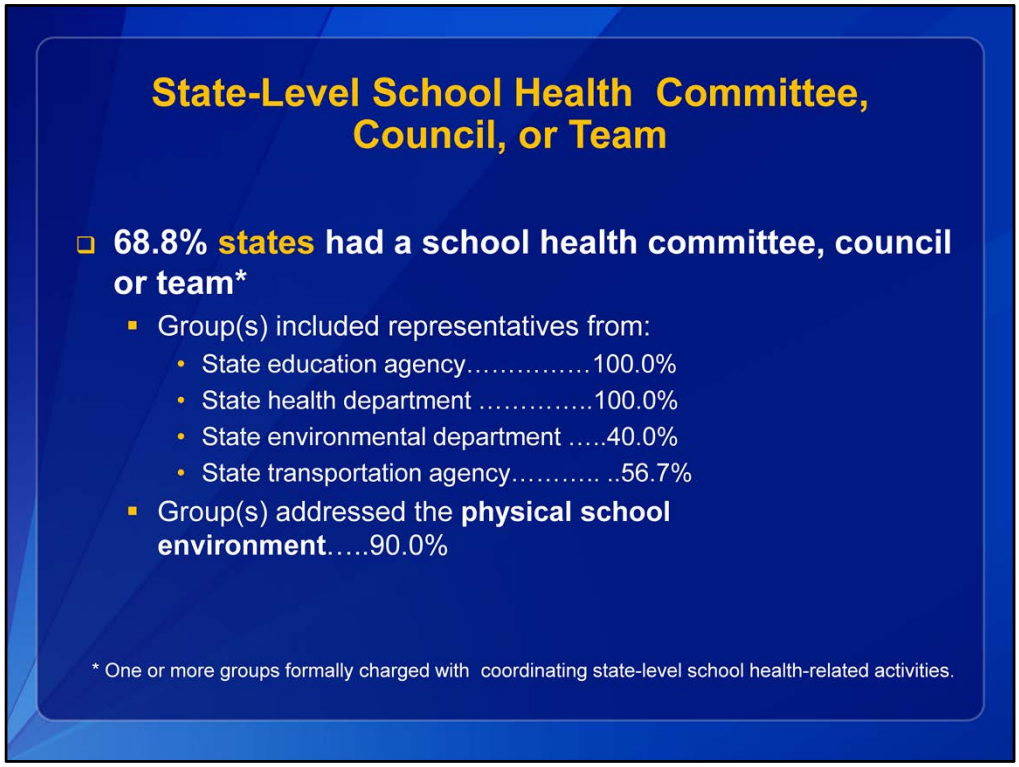
SHERRY EVERETT JONES:
All 51 states participated, so 100%. Eight hundred and four districts or 76.7% completed at least one module of the questionnaire. If we look specifically at the physical school environment module, that was completed by 598 respondents.

SELECTED RESULTS: PHYSICAL SCHOOL ENVIRONMENT



SHERRY EVERETT JONES:
I will jump right into the results. These are, as I mentioned, coming from the physical school environment module of the healthy and safe school environment. An important way states and districts can support the health and safety of students and school staff is to have a school health coordinator. This is a person who is responsible for overseeing or coordinating school health and safety policies, and it strengthens school health programs at the state and district level.

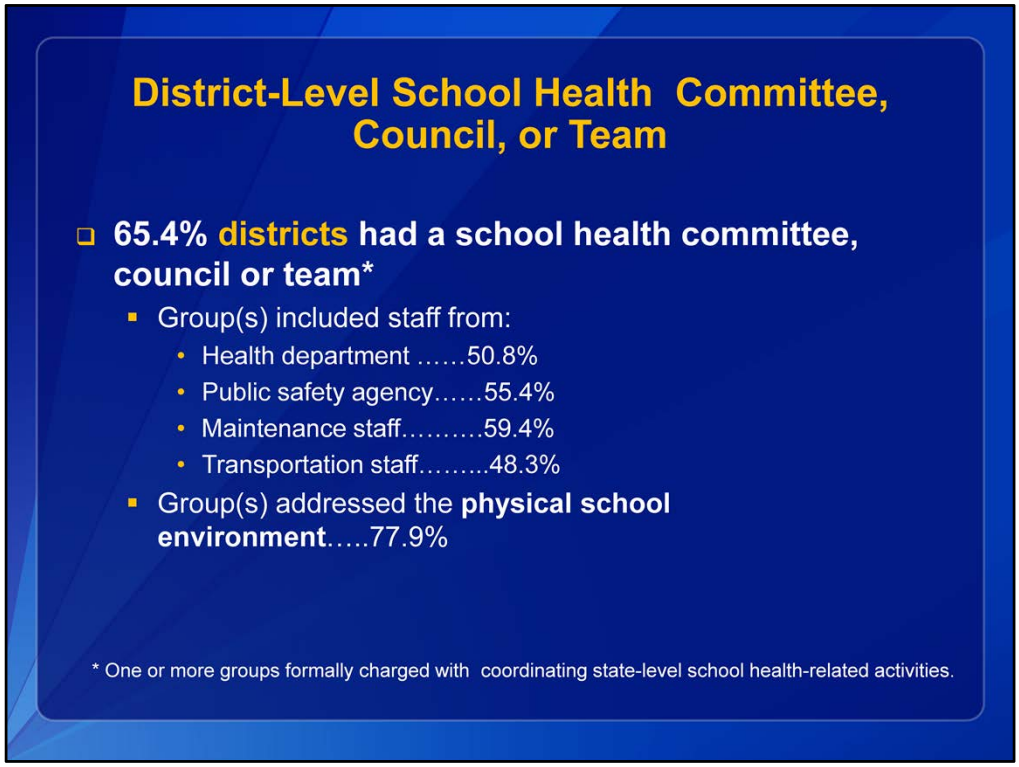
You can see on the last row of this table here, 66% of states and 53.7% of districts had a school health coordinator for school health and safety policies and activities. This would be the person you would call for more information about specific resources in your state or district on indoor air quality.



SHERRY EVERETT JONES:
The presence of a School Health Council Committee or Team is an effective and efficient way for both states and districts to coordinate and promote policies and practices that support student and staff health at the school. Particularly if the group is comprised of stakeholders from a variety of disciplines and addresses a variety of topics.

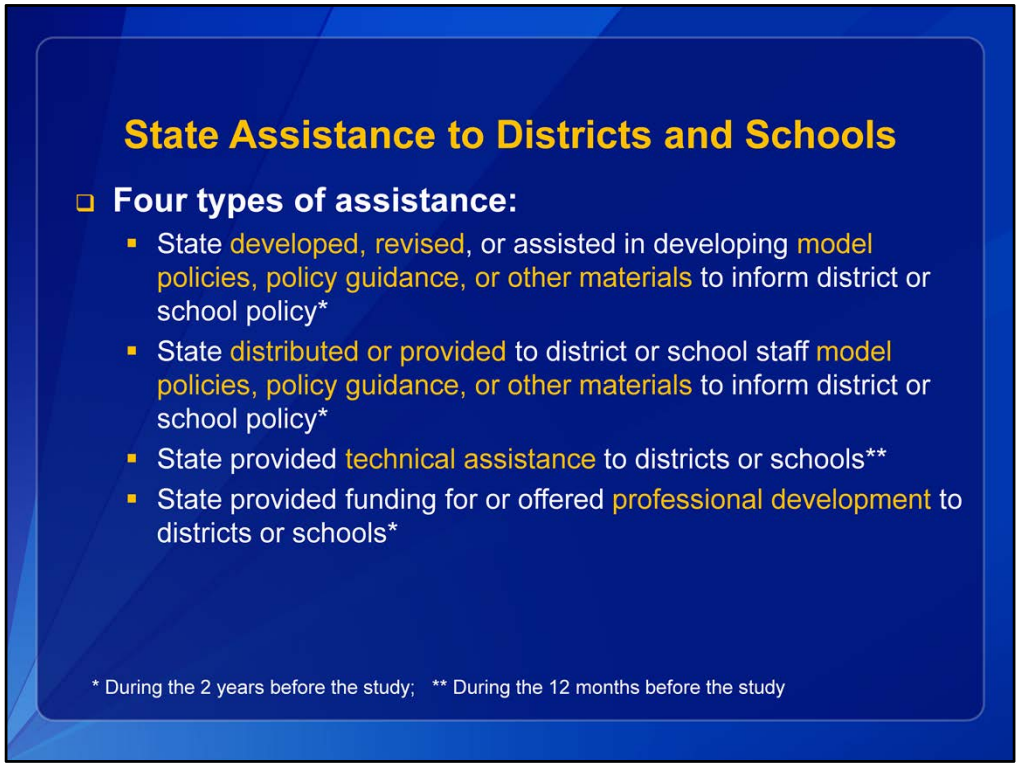
In some cases, you might have multiple groups or you might have one group that addresses a variety of topics. On SHPPS, respondents were asked if there was one (or more than one group) at the state level that offers guidance on the development of policies or coordinates activities that are health-related. Then the respondents were asked who is on the group, and what topics that group (or more than one group) might have addressed.

You can see here that 68.8% of states had a School Health Committee Council or Team. Among those states, 100% had representation from the state education agency and the state health department. Fewer had representation from the state environmental department and state transportation agency, 40% and 57%. You can see that nearly all of them had one or more groups that focused—90% reported that the group addressed the physical school environment.



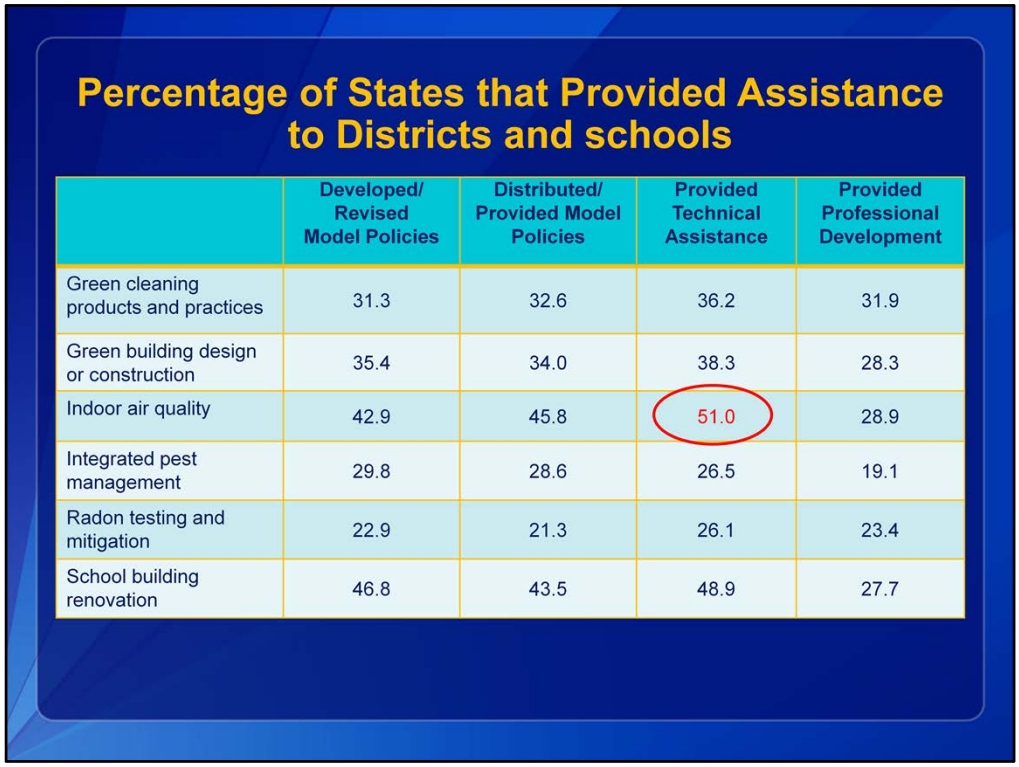
SHERRY EVERETT JONES:
We asked the same set of questions at the district level. You can see here that 65.4% of districts had a School Health Committee Council or Team. Among those districts, 50.8% had representation from the health department, 55.4% from the public safety agency, 59.4% from the maintenance staff and 48.3% from the transportation staff.

We actually have a whole bunch of different options of who could have been included. I tried to pull out ones that you would hope would be on a School Health Council if they were addressing the physical school environment and indoor air quality. Nearly all of those councils had district administrators. Most of them, more than 90%, had health services staff; 89% had health education staff. All of these data are in our full report. You can check that out for more information about that.



SHERRY EVERETT JONES:
On the state questionnaire, we wanted to know what kind of assistance the states might be providing the district in schools. These are the four kinds of assistance that we asked about. This assistance can take a number of forms. We asked does the state get involved in disseminating model policies or other policy materials? Do they develop them? Do they provide technical assistance? Do they provide either money for or offer professional development?

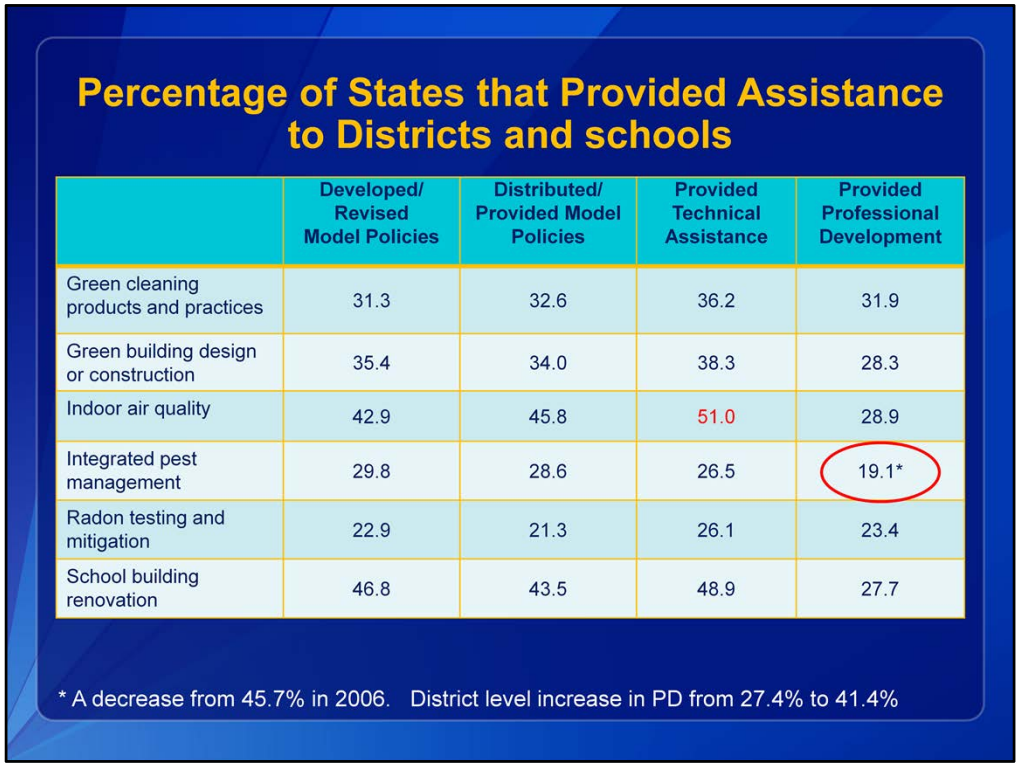
Arguably, states that provide these kinds of assistance not only communicate to their districts and school administrators that the topic is important, but provide districts and schools with the practical information they need to implement health-promoting policies and practices. We are working on a paper right now (EPA and CDC are collaborating) that looks at whether or not in a state that provides this kind of assistance on indoor air quality and integrated pest management topics, there really is an association with what happens at the district level with the kinds of policies and practices.



Percentage of States that Provided Assistance to Districts and schools

	Developed/ Revised Model Policies	Distributed/ Provided Model Policies	Provided Technical Assistance	Provided Professional Development
Green cleaning products and practices	31.3	32.6	36.2	31.9
Green building design or construction	35.4	34.0	38.3	28.3
Indoor air quality	42.9	45.8	51.0	28.9
Integrated pest management	29.8	28.6	26.5	19.1
Radon testing and mitigation	22.9	21.3	26.1	23.4
School building renovation	46.8	43.5	48.9	27.7

SHERRY EVERETT JONES:
This slide covers a variety of topics and the kinds of state assistance in the columns. You can see that with the exception of technical assistance for Indoor Air Quality, fewer than half of the states provided these four types of assistance: the districts and schools on green cleaning products and practices, green building design or construction, indoor air quality, integrated pest management, radon testing and mitigation, and school building renovation.



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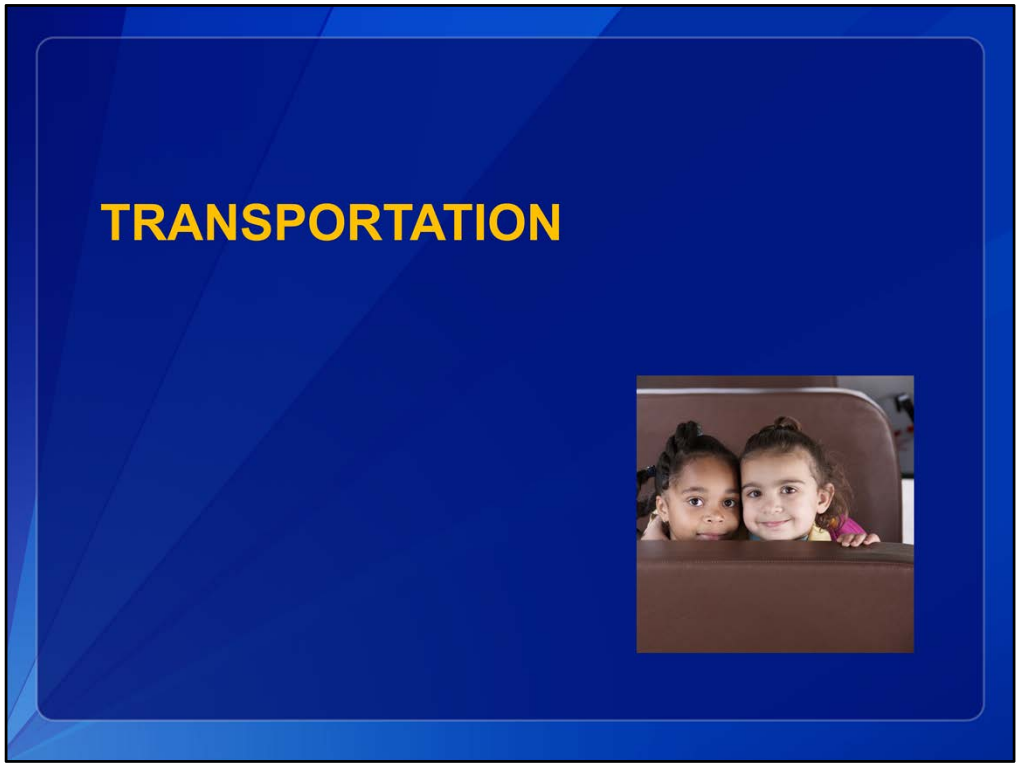
Indoor air quality	42.9	45.8	51.0	28.9
Integrated pest management	29.8	28.6	26.5	19.1*
Radon testing and mitigation	22.9	21.3	26.1	23.4
School building renovation	46.8	43.5	48.9	27.7

* A decrease from 45.7% in 2006. District level increase in PD from 27.4% to 41.4%

SHERRY EVERETT JONES:
Only one of those variables related to the state assistance changed over time, and that was integrated pest management. We found that the percentage of states that offer professional development for integrated pest management significantly decreased from 45.7% in 2006 to 19.1% in 2012. This is headed in the wrong direction, of course.

I didn't create another whole slide for the district level results for professional development because the numbers are so similar; they are almost right on target. There is one important difference I want to point out, and that is that at the district level, professional development actually increased for integrated pest management from 27.4% to 41.4% from 2006 to 2012. So decreasing at the state level but increasing significantly at the district level.



SHERRY EVERETT JONES:
Now I will move on to some district level results and I'm going to start with transportation.

Engine Idling Reduction Programs

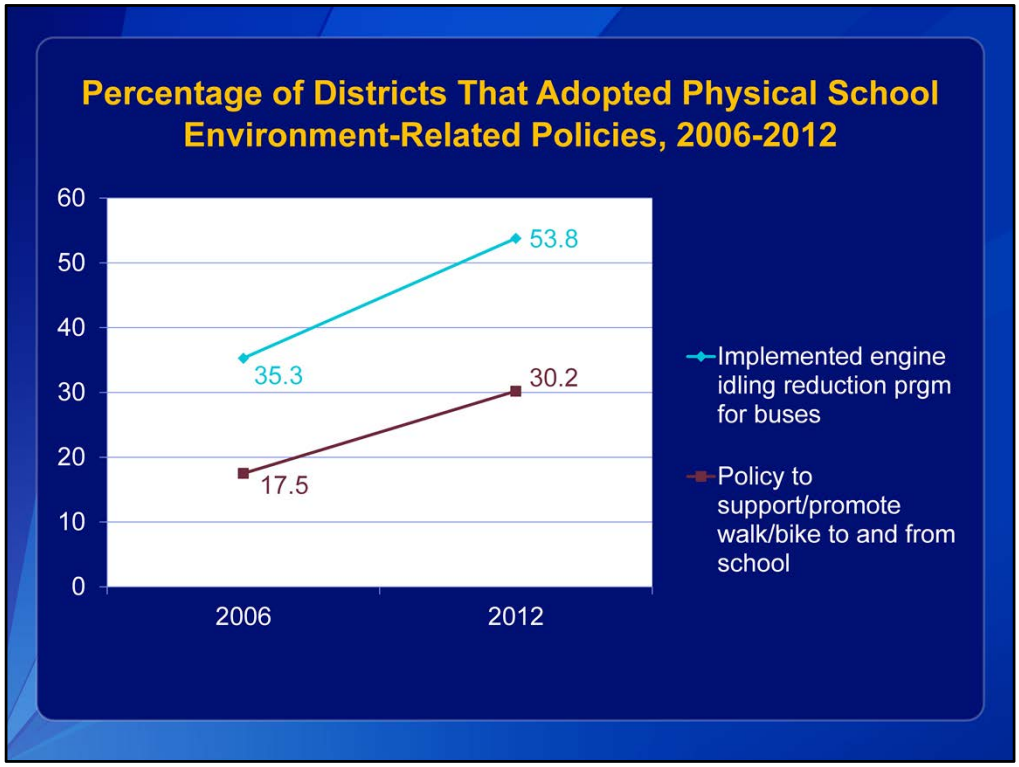
Percentage of districts that had implemented a program:

- 53.8% for school buses
- 28.9% for commercial vehicles
- 17.8% for personal vehicles

- Of districts with an idling reduction program for buses
  - 81.9% had provided bus drivers with training related to the program*

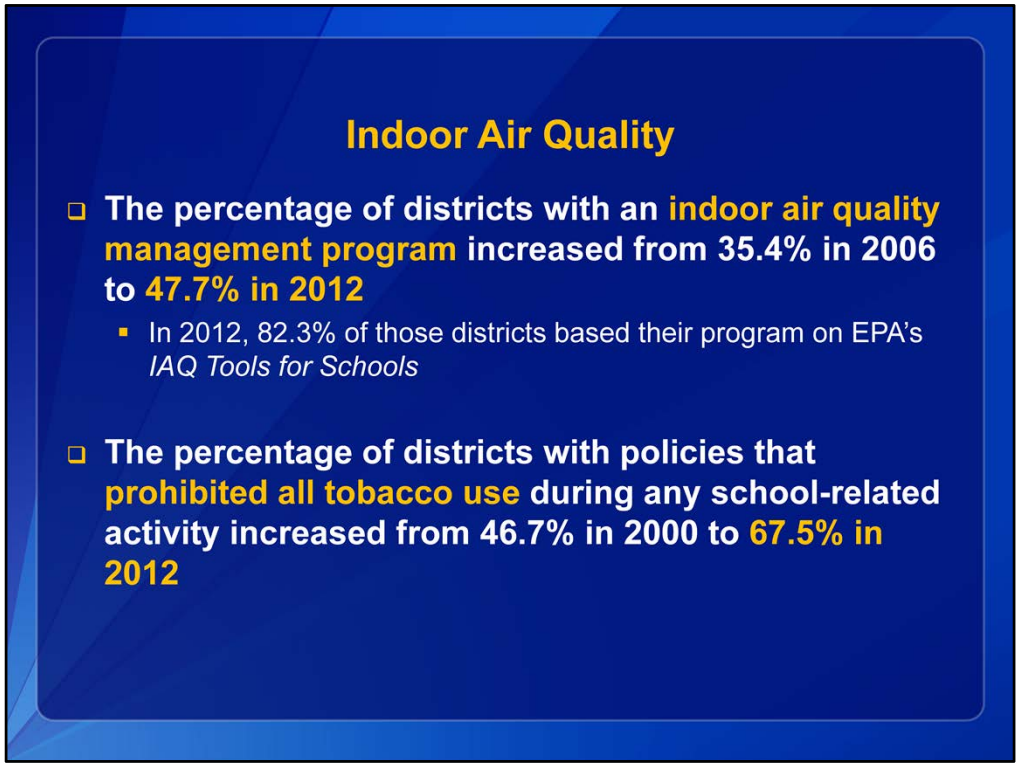
* 2 years before the study

SHERRY EVERETT JONES:
Engine idling reduction programs can be used by schools to reduce exposure to pollution from diesel and gasoline engines. You can see here that 53.8% of districts had an engine idling reduction program for school buses, 28.9% had a program for commercial vehicles and 17.8% had a program for personal vehicles. And you can see that the vast majority of districts with a program for school buses provided drivers with the training related to the program, which is good.



SHERRY EVERETT JONES:
This slide shows some encouraging findings. You can see that the percentage of districts that implemented an engine idling reduction program for school buses significantly increased from 35.3% in 2006 all the way up to 53.8% in 2012. And districts with a policy to support or promote walking or biking to and from school also increased, up to 30.2% in 2012. There is some room for improvement but headed in the right direction.

SHERRY EVERETT JONES:
I'm going to move to more specific indoor air quality questions or data.



SHERRY EVERETT JONES:
As Brenda mentioned, an Indoor Air Quality Management Program is a set of specific activities for preventing and resolving indoor air quality problems, and that's how we defined "Indoor Air Quality Management" on our SHPPS questionnaire. We found that nearly 50% of districts had an Indoor Air Quality Management Program, and that is up from 35.4% in 2006.

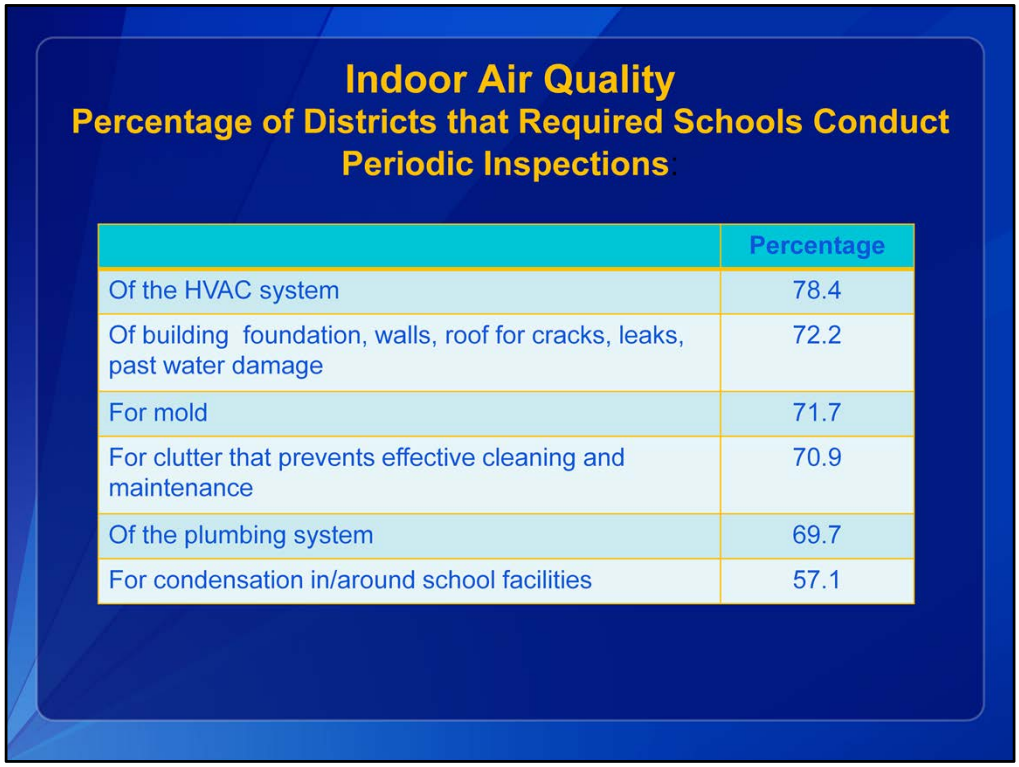
As Brenda also mentioned, the vast majority of those districts based their program on *Tools for Schools*. We also looked at what kind of policies there were around cigarette use and/or tobacco policies. We know that cigarette use is an important issue for indoor air quality. Smoking remains a significant contributor to premature morbidity and mortality and yet we still find it common among youths.

In 2011, the CDC's national youth risk behavior survey found that during the 30 days before the survey, 18% of high school students had smoked cigarettes. The CDC's current Tobacco Use Prevention Guidelines call for comprehensive tobacco use prevention policies. These are policies that prohibit any tobacco use among students, faculty, staff and school visitors— pretty much everywhere in the school building, on the school grounds, in school vehicles and at school-sponsored events, even if they are off-campus.

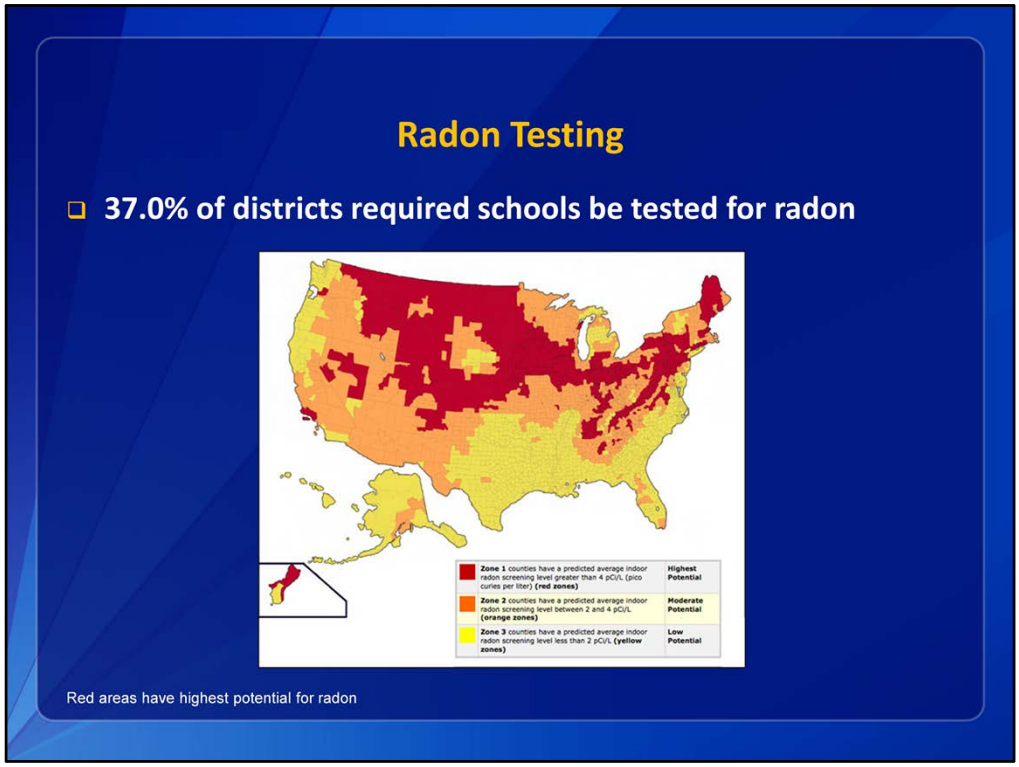
Similarly, Healthy People 2020, which sets health goals for the nation, calls for, and I'm quoting here, "increase in tobacco-free environments in schools, including all school facilities, property, vehicles and school events." That goal is 100%.

Prohibiting all tobacco use at school and at school-sponsored events is important as a tobacco use prevention policy or strategy because it protects students, faculty, staff and visitors from secondhand smoke; but it also eliminates the opportunity for students to observe, so there's no modeling and participation in tobacco use at school and school activities.

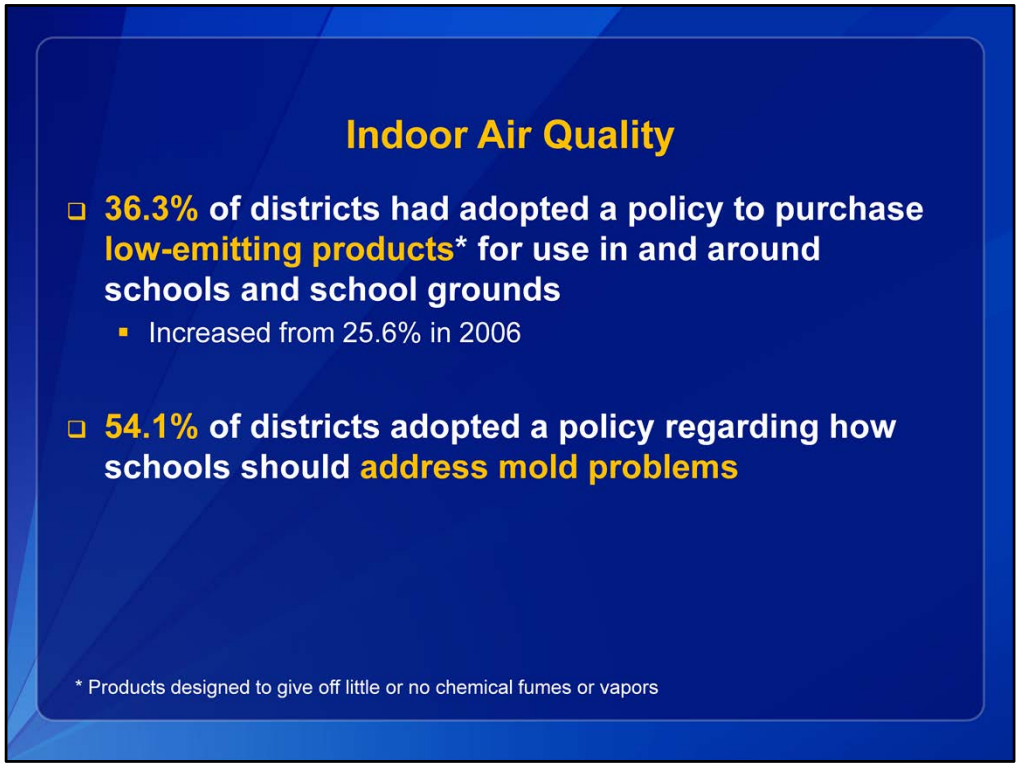
SHPPS found that 67.5% of districts had policies that prohibited all tobacco use during any school-related activities. That's a significant increase from the 46.7% in 2000, but still a long way to go before we reach the goal of 100%.



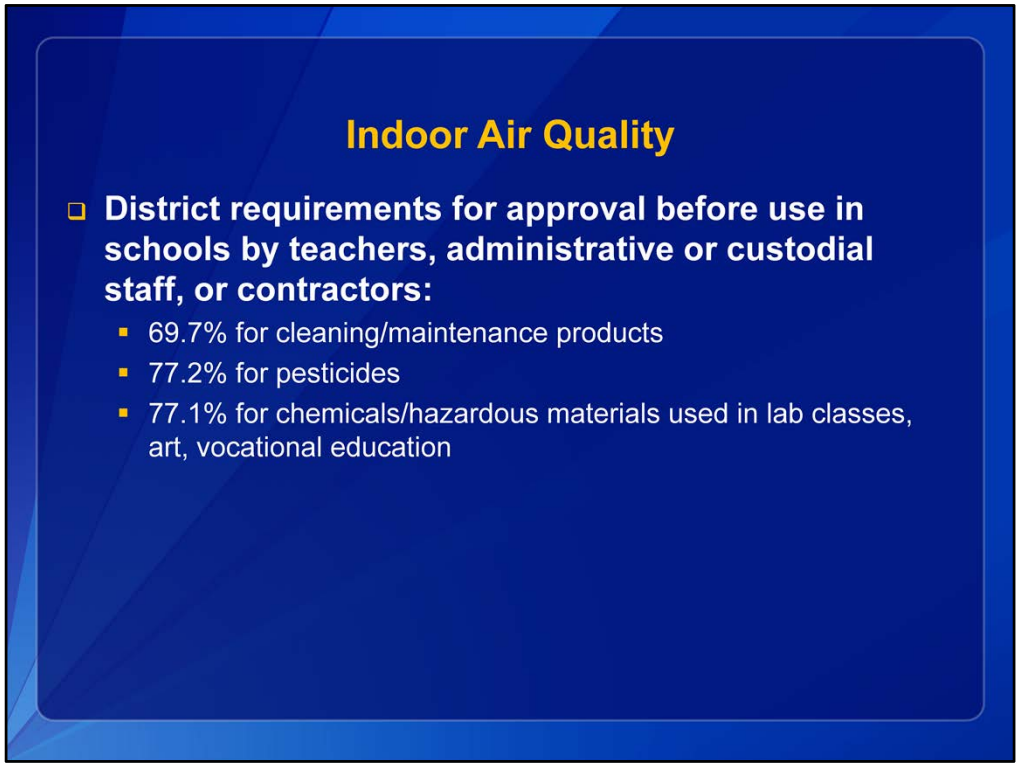
SHERRY EVERETT JONES:
This slide shows the percentage of districts that require schools to conduct various kinds of inspections related to indoor air quality. You can see that the percentages are all greater than 50%. But really these inspections— inspections of the heating, ventilation and air-conditioning systems and the building envelope; inspections for molds; for clutter that affects the ability to clean; inspections of the plumbing system; and inspections for condensation— these are all key inspections needed to maintain good indoor air quality. So we would hope that these would be higher.



SHERRY EVERETT JONES:
Radon is a colorless, odorless and tasteless naturally occurring gas that causes lung cancer. This map was developed by EPA to show areas at highest risk for radon. SHPPS found that nationwide, 37% of districts require schools to be tested for radon. EPA recommends that all schools be tested, regardless of the zone in which they fall.

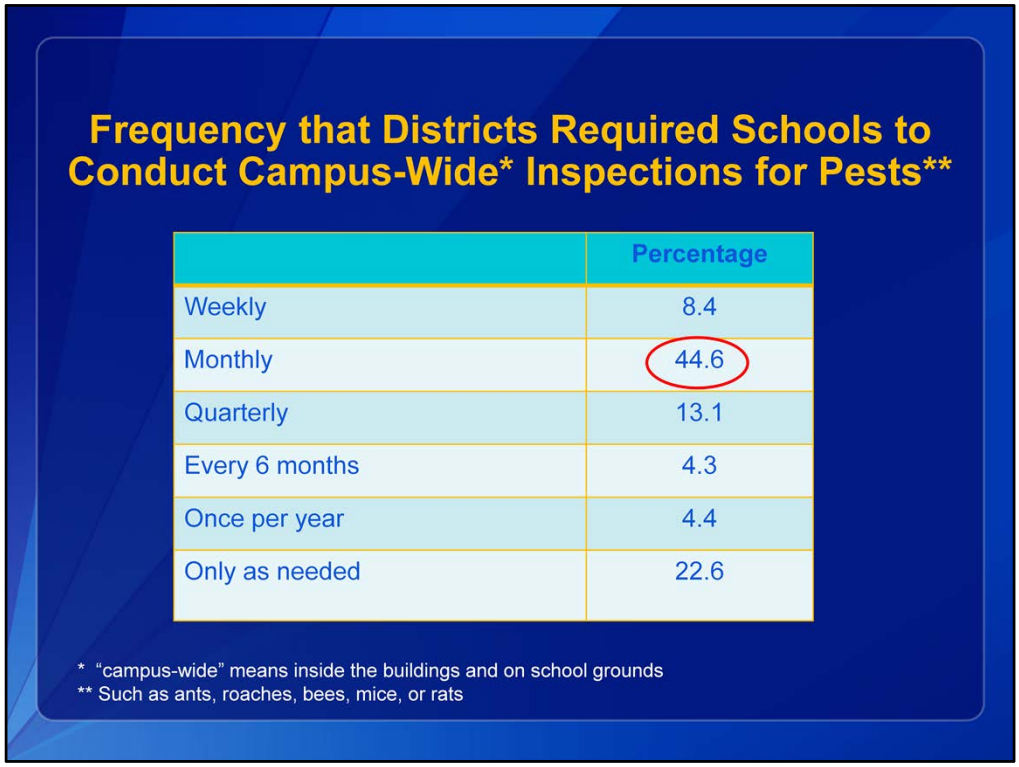


SHERRY EVERETT JONES:
SHPPS found that 36.3% of districts had adopted the policy to purchase low-emitting products for use in and around schools and school grounds. Those are products designed to give off little or no chemical fumes or vapors. That is a pretty low percentage, but we're headed in the right direction. We're up from 25.6% in 2006. In a little more than half the districts, 54.1% adopted a policy regarding how schools should address mold problems.



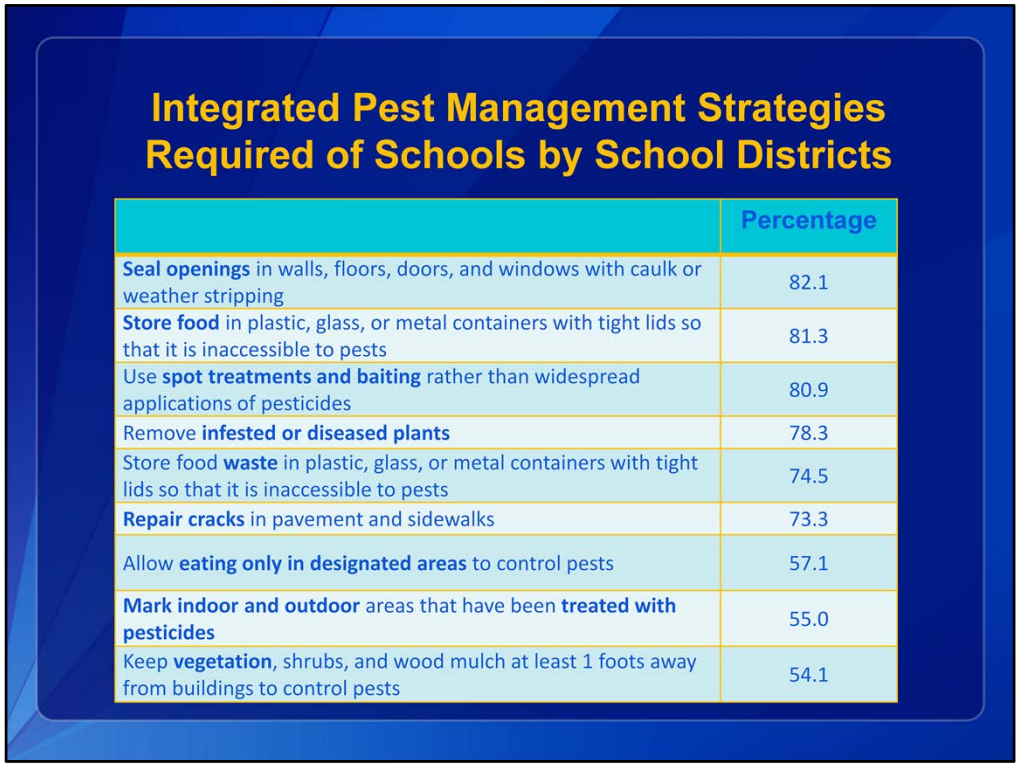
SHERRY EVERETT JONES:
SHPPS examined the extent to which districts required approval before certain potentially hazardous materials could be used in schools. We found that requiring approval is actually pretty common: 69.7% required approval for use of cleaning or maintenance products, 77.2% for pesticides, and 77.1% for chemicals or hazardous materials used in lab classes or vocational education.

SHERRY EVERETT JONES:
I will move on to pest control.



SHERRY EVERETT JONES:
Schools are particularly vulnerable to pest problems because the schools tend to be large. They are large structures. There is a large number of occupants. There's food onsite and there is an abundance of books, supplies and equipment that provide potential habitats for various types of pests.

So as a result, districts may require schools to conduct campus-wide inspections for pests such as ants, roaches, bees, mice or rats. You can see that SHPPS found 44.6% of districts required schools to conduct inspections for pests monthly. This is a timeframe recommended by EPA. At a minimum, EPA recommends quarterly inspections, which you can see here are required by 13.1% of districts. I will just have a shout out for Sherry Glick who is EPA's lead for integrated pest management, so she is on board to answer some questions about IPM down the road if appropriate.

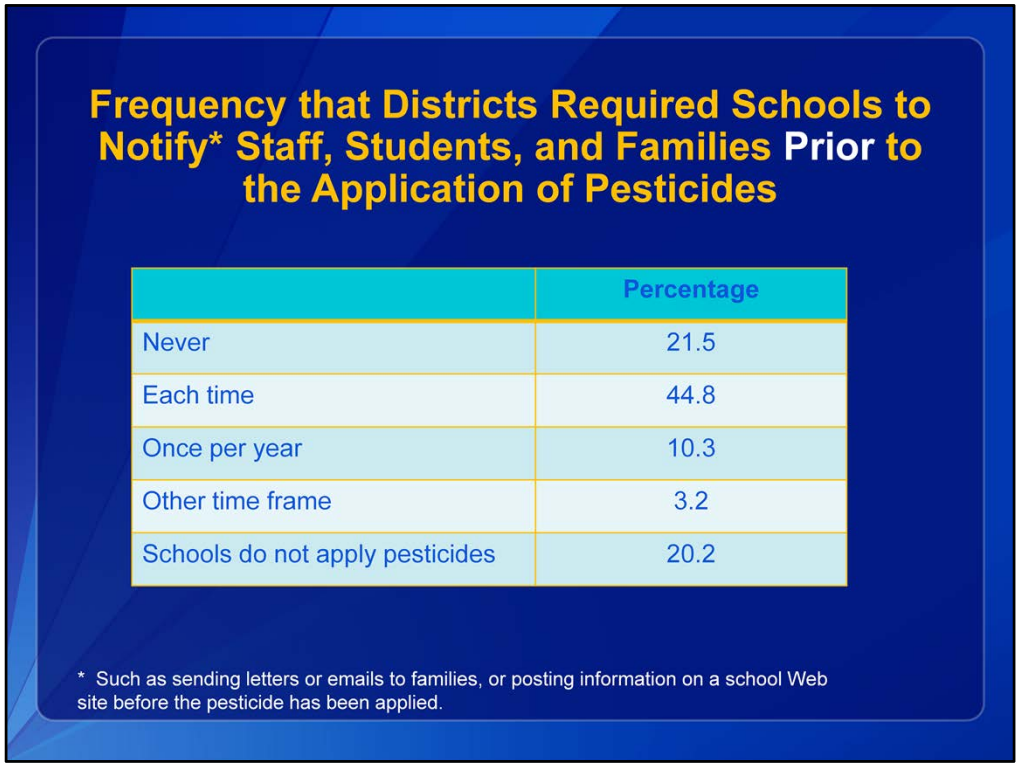


SHERRY EVERETT JONES:
Integrated pest management is an approach to pest control that seeks to reduce the use of toxic pesticides as much as possible by relying on nontoxic methods of pest control such as physical exclusion, or by limiting pesticide use to one that is really absolutely needed—not just as a precaution.

SHPPS did not specifically ask districts if they require schools to implement an integrated pest management program, because we were concerned that many policies or practices might be in place but not thought of as an integrated management program or integrated pest management practices, per se. Instead what we did was ask a series of questions that address practices consistent with integrated pest management, and that is what you see on the slide here.

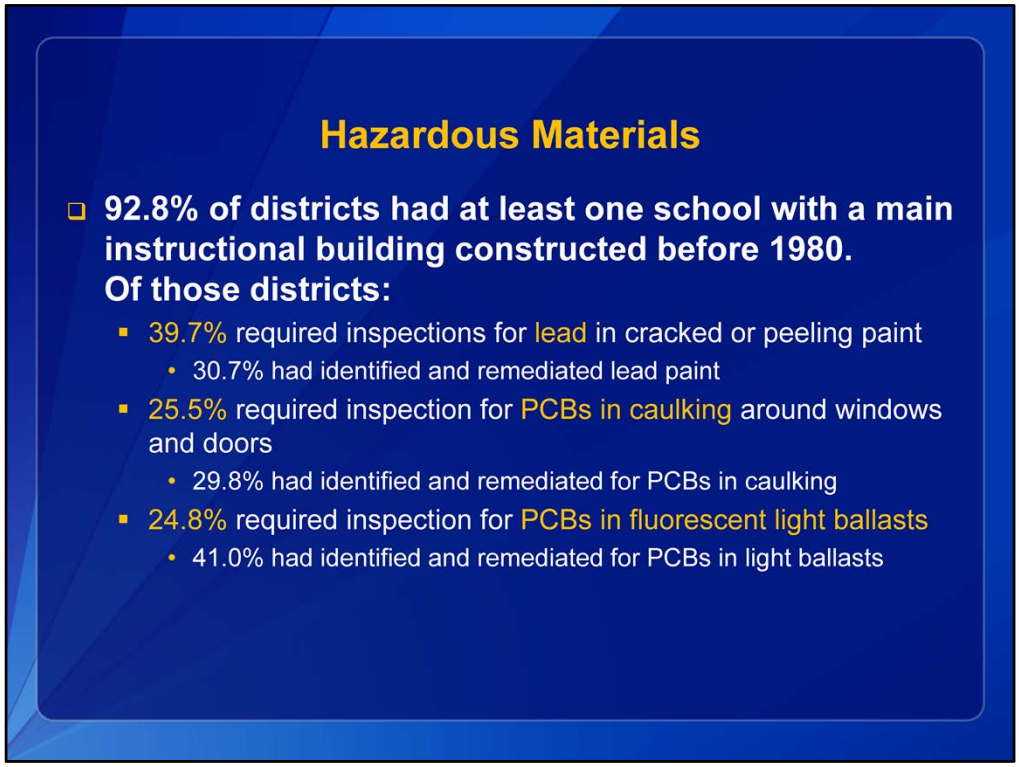
More than half the districts required schools to use an integrated pest management strategy, and that is great. The most common, you can see here, were seal openings in walls, floors, doors and windows with caulk or weatherstripping, so that's physical exclusion; and store food in plastic, glass or metal containers with tight lids so that it is inaccessible to pests. The third most common was using spot treatments and baiting rather than widespread applications of pesticides.

SHERRY EVERETT JONES:
Here, 83.9% of districts use an outside company for pest management and, of those districts, nearly all of them, 96.8%, use the company that is third-party certified for integrated pest management practices.



SHERRY EVERETT JONES:
Ideally, staff, students and families would be notified prior to the application of pesticides. SHPPS found that 21.5% of districts reported that schools were never required to send or post notification. I just want to highlight that it doesn't necessarily mean that 21.5% of schools never do so—only that some districts leave it up to schools to create their own notification policy; 44.8% of districts required prior notification each time.

SHERRY EVERETT JONES:
Next, I will move on through hazardous materials.



SHERRY EVERETT JONES:
Just a little bit of introduction about PCBs and lead paint. Although both lead-based paint and polychlorinated biphenyls or PCBs were banned in the late 1970s, schools constructed before 1980 might contain them. SHPPS found (we asked) whether or not the district had a school that had been built before 1980, and nearly all of them did: 92.8%. So this is an important issue for lots of school districts.

PCBs are a class of organic chemicals that were used in a variety of commercial products in the 1950s through the late 1970s. Because of the current concerns about the effects on both human health and the environment, Congress banned the manufacturing use of PCBs in the late 1970s.

In older school buildings, PCBs might be found in caulk or other sealants, window glazing, fluorescent light ballasts, capacitors, ceiling tile coatings and possibly other materials, such as paints or floor finishes. You can see on the slide that some districts with schools constructed before 1980 had previously identified and undergone remediations for these substances in their schools.

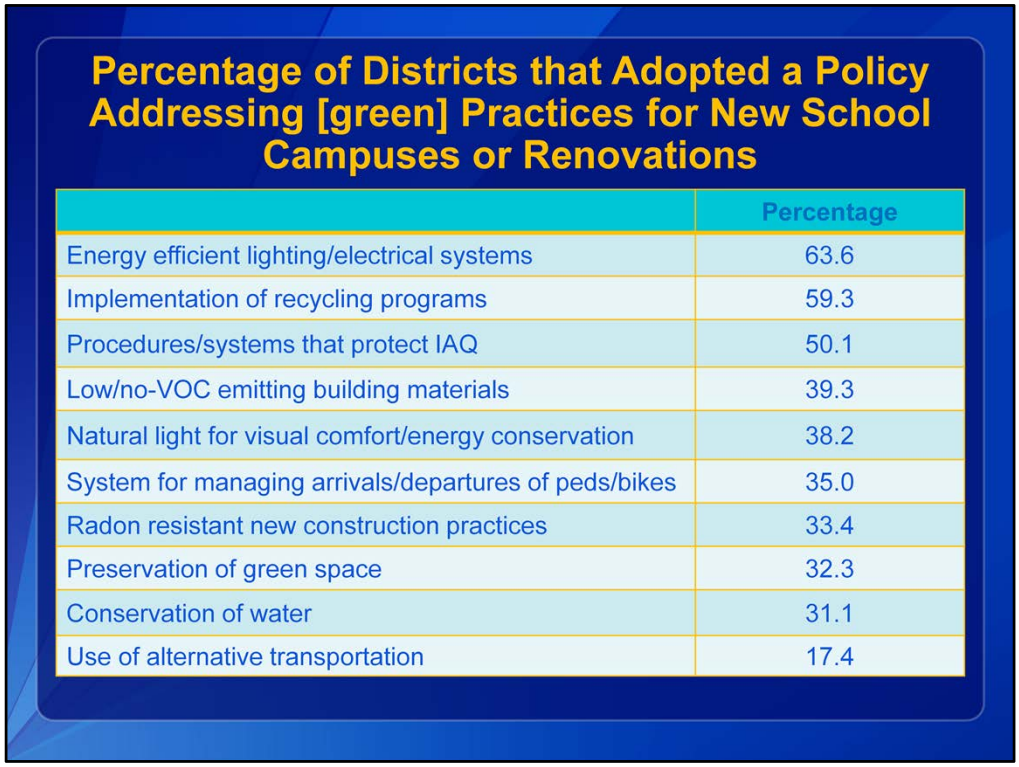
Only two in five districts, 39.7%, had adopted policies requiring schools to inspect for lead and cracked or peeling paint. Only about one in four districts had adopted policies requiring schools to inspect for PCBs in caulking or in fluorescent light

ballasts. EPA has some great guidance on this.

SHERRY EVERETT JONES:
We had a whole bunch of new questions on school construction and renovation, but I'm just going to highlight a couple different issues that are more specific to indoor air quality.

SHERRY EVERETT JONES:
The first is green building design. SHPPS defines green building design as a way of designing a building that minimizes impact on the environment by conserving resources such as energy and water, protecting the landscape, and providing healthy indoor air.

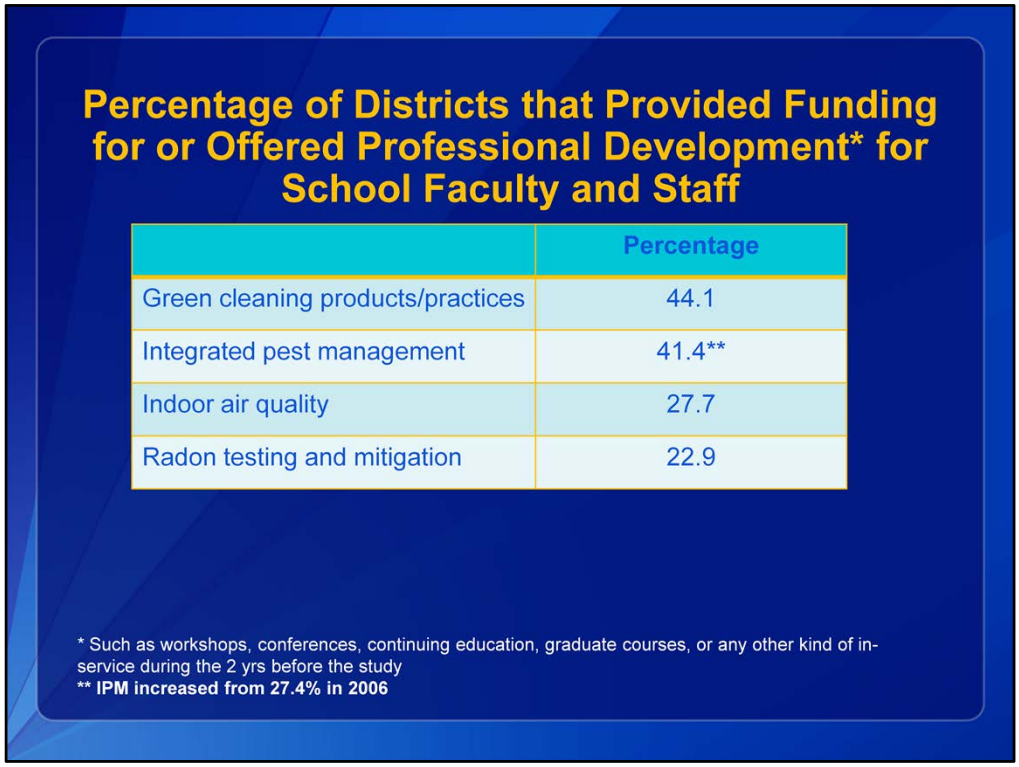
We found that almost one-third, 30%, of districts had adopted a policy to include green building design when building new school buildings or renovating existing buildings. Among those districts, 48.5% stated that a policy required the use of a third-party green building certification, labeling or rating system.



SHERRY EVERETT JONES:
Districts can do things that are consistent with the green building policy even if they don't actually have a green building policy. That is how we approached this issue in SHPPS. We asked them a whole bunch of different possible scenarios, and then whether or not the district had that kind of policy.

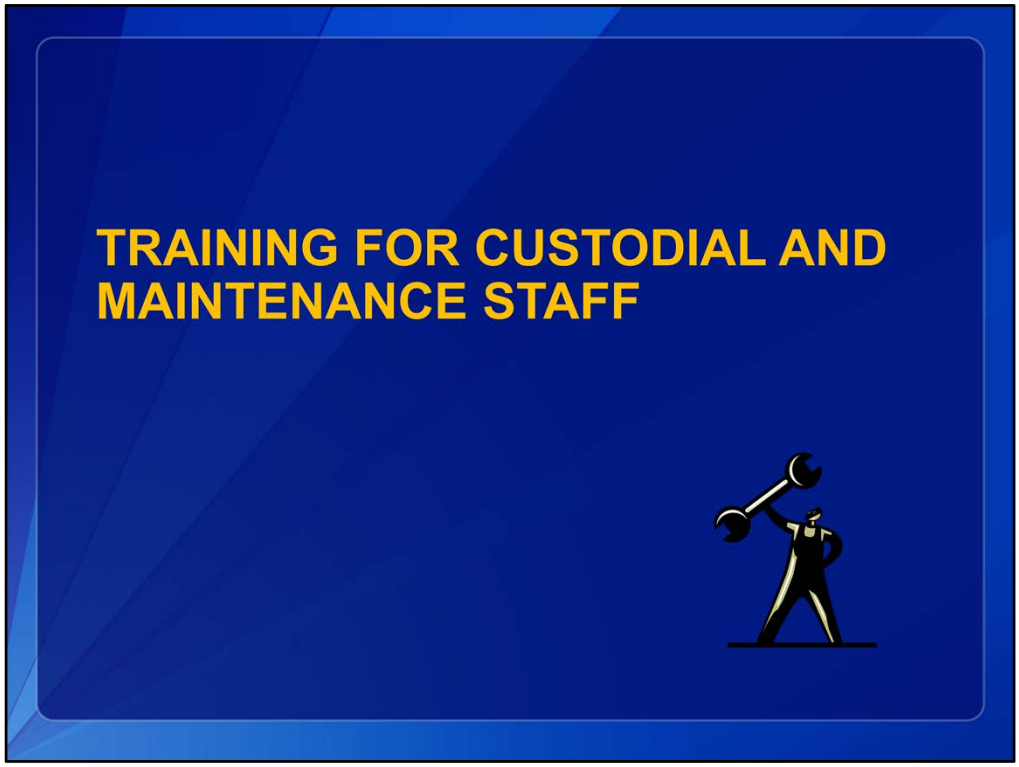
You can see that the three most common practices for new school campuses and renovations consistent with this green building policy were: use of energy, efficient lighting and electrical systems; implementation of recycling programs; and use of procedures or systems to protect indoor air quality. That last row there, use alternative transportation, it's sort of understandably low because so few schools are located where public transportation is available or where students can reasonably walk or bike to school.

PROFESSIONAL DEVELOPMENT FOR SCHOOL FACULTY AND STAFF

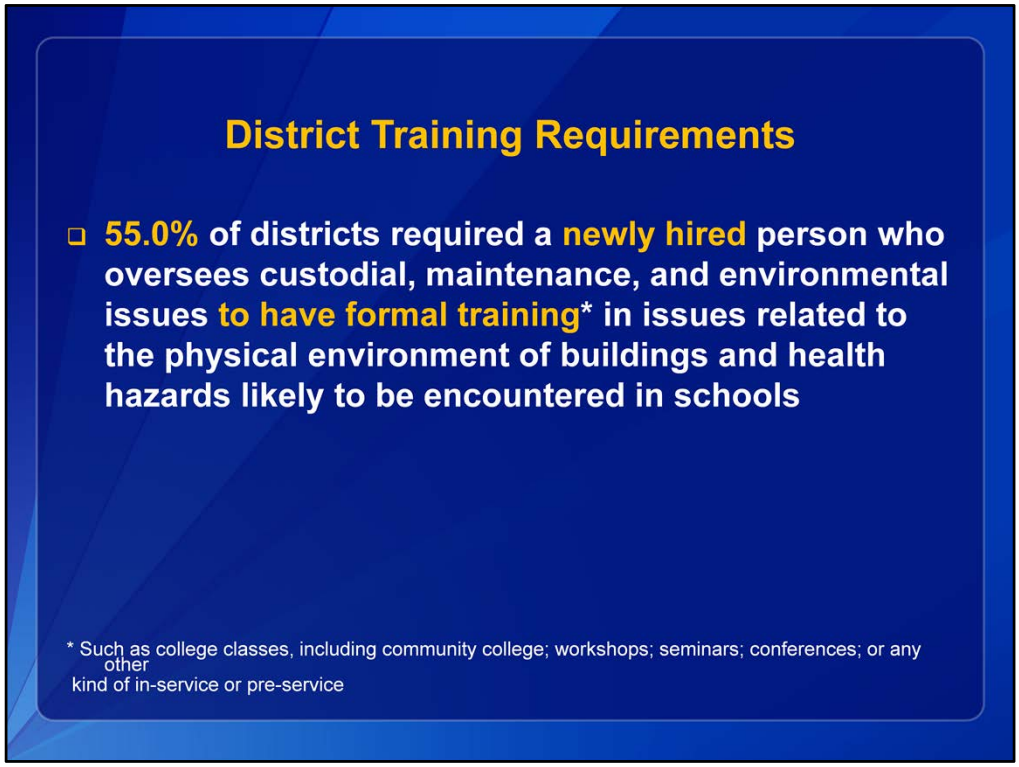


SHERRY EVERETT JONES:
To start wrapping it up, professional development in schools for school faculty and staff: districts can provide funding for professional development or offer professional development for school faculty and staff on how to implement school-wide policies and programs on a variety of topics related to the physical school environment.

During the 2 years before the study, less than one-half of districts have provided funding for professional development or offer professional development on the topics you see here—green cleaning products and practices, integrated pest management, indoor air quality, and radon testing and mitigation. As I mentioned before, only integrated pest management increased from 2006 to 2012, up to 41.4%.



SHERRY EVERETT JONES:
We also asked about training for custodial and maintenance staff.

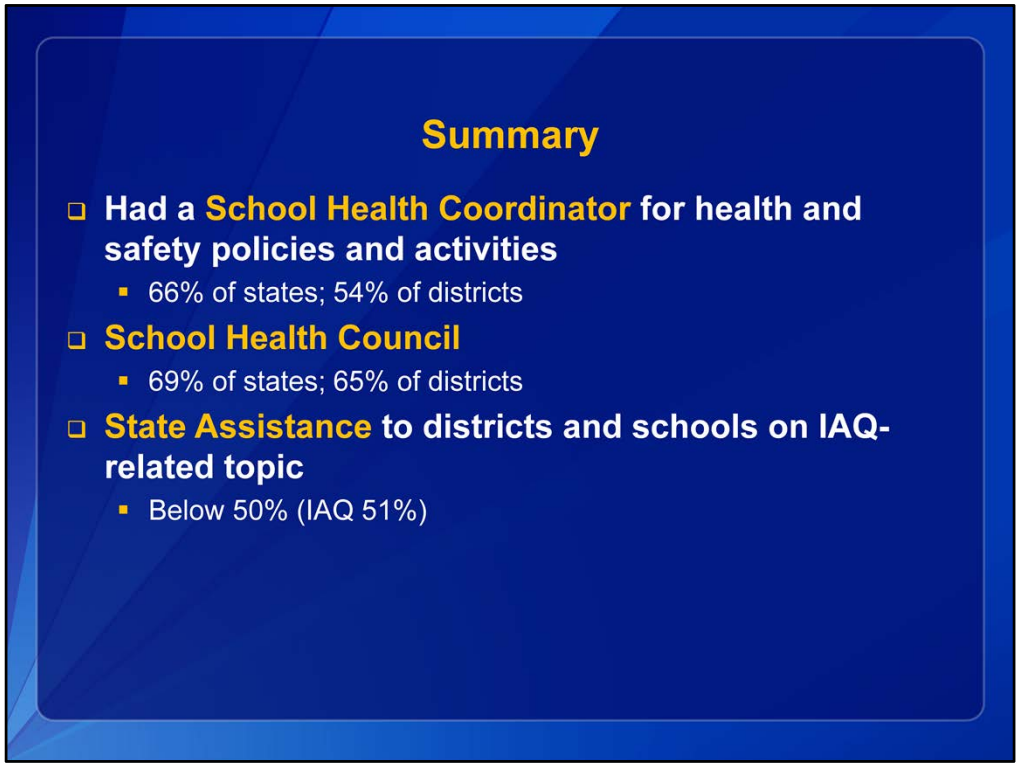


SHERRY EVERETT JONES:
You can see here that more than half, 55% of districts, required a newly hired person who oversees custodial maintenance and environmental issues to have formal training in issues related to the physical school environment for buildings and health hazards likely to be encountered in schools.

Percentage of Districts that Provided Funding for Training or Offered Training to Custodial or Maintenance Staff

	Percentage
Hazardous materials:	
Disposal	82.4
Labeling	79.3
Reducing the use	74.8
Storage	82.7
Use	81.2
How to address mold problems	63.7
Green cleaning products and practices	63.0
Pest management practices that limit pesticide use	59.1
Indoor air quality	54.8

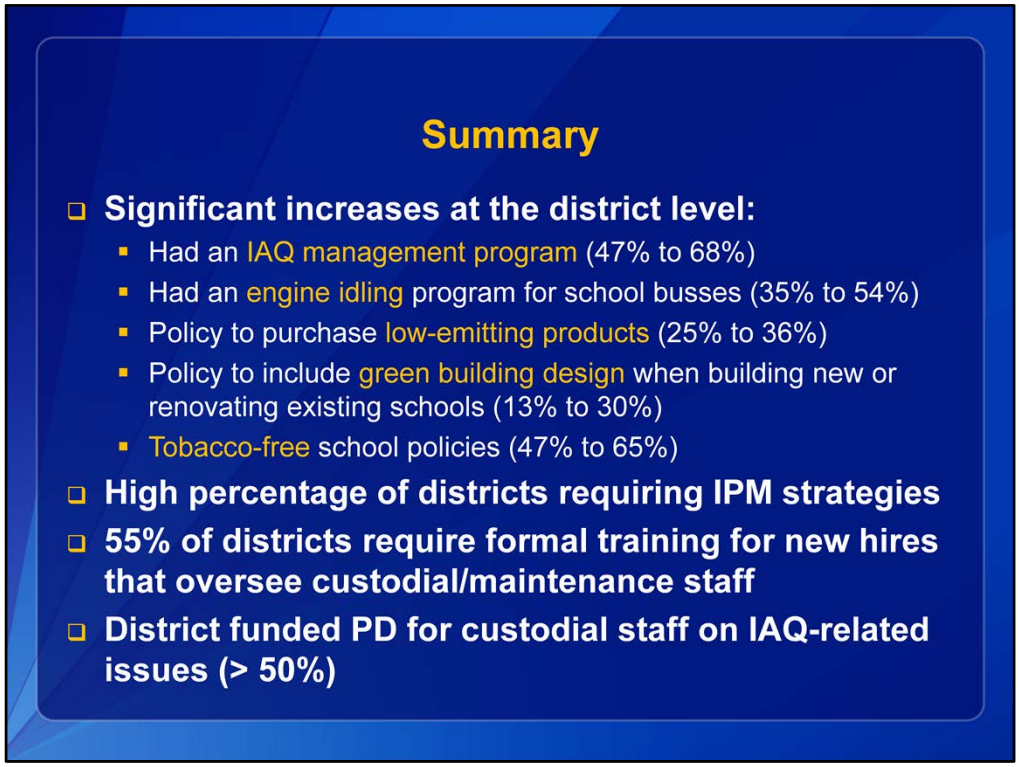
SHERRY EVERETT JONES:
Districts can also provide funding for training or offer training to custodial and maintenance staff on a variety of topics related to the physical school environment, so we asked about several of those. You can see on this slide that during the 2 years before the study, funding for training on the disposal, labeling, storage, reducing the use and the use of hazardous materials were the most common training topics.



SHERRY EVERETT JONES:
So holy cow, there's a lot of data and that was barely scratching the surface! I will summarize this a little bit. State, district and school staff are asked to do more in spite of shrinking budgets; we know that. That means that at all levels, education is looking for the most cost-effective means to ensure that schools are healthy and safe places for students to learn. Having a school health coordinator that oversees or coordinates school health and safety policies and activities means that schools and districts have a place to turn for more information.

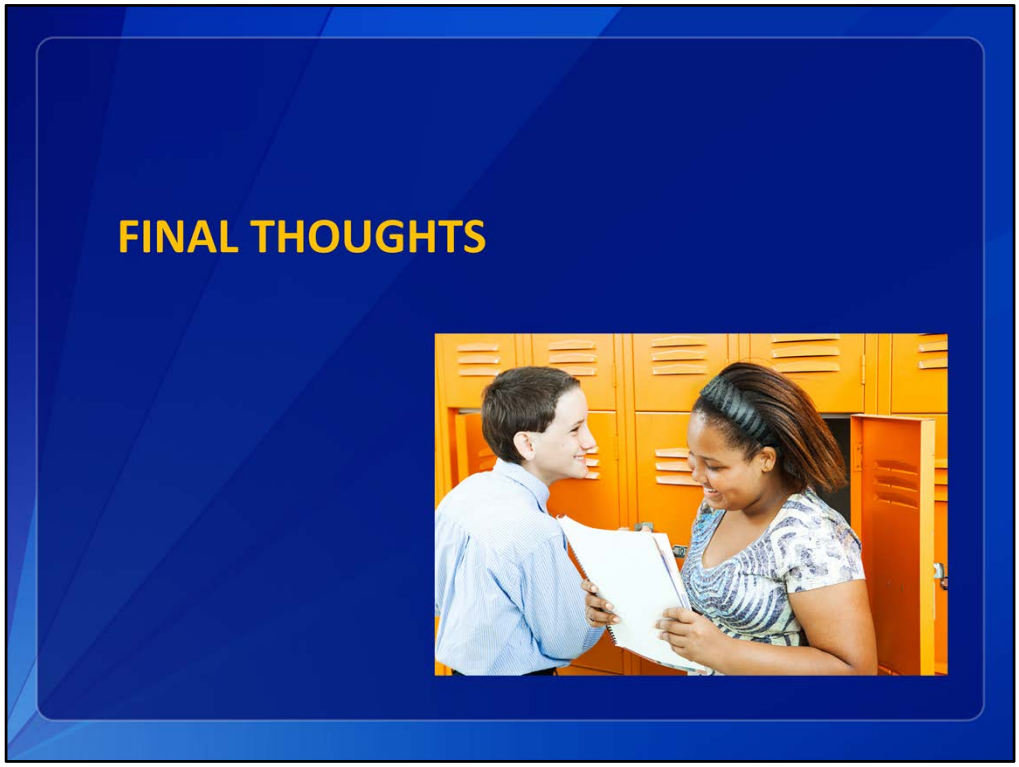
It avoids the need for schools and districts to independently research and develop the resources they need. SHPPS found that only 66% of state and 54% of districts had a school health coordinator whose focus was school health and safety policies and activities. We know that more states and districts would benefit from school health councils which, when at their best, really help coordinate all health policies and practices at their level.

SHPPS found that 69% of states and 65% of districts had a school health council. If a school health coordinator and a school health council were in place at the state level, it might mean that states could more efficiently navigate existing resources and then provide that assistance to schools on indoor air quality-related topics.



SHERRY EVERETT JONES:
The findings from SHPPS suggest there's a lot of good news. SHPPS found significant gains in districts with an Indoor Air Quality Management Program, with an engine idling program for school buses, with a policy to purchase low-emitting products, with a policy to include green building designs when building new or renovating existing buildings, and with tobacco-free school policies.

Many districts require integrated pest management strategies. They require new hires to have formal training on issues related to the physical school environment and provide professional development on indoor air quality-related topics. In my view, I consider these gains sort of bittersweet, because in spite of the improvement, clearly we can do better.

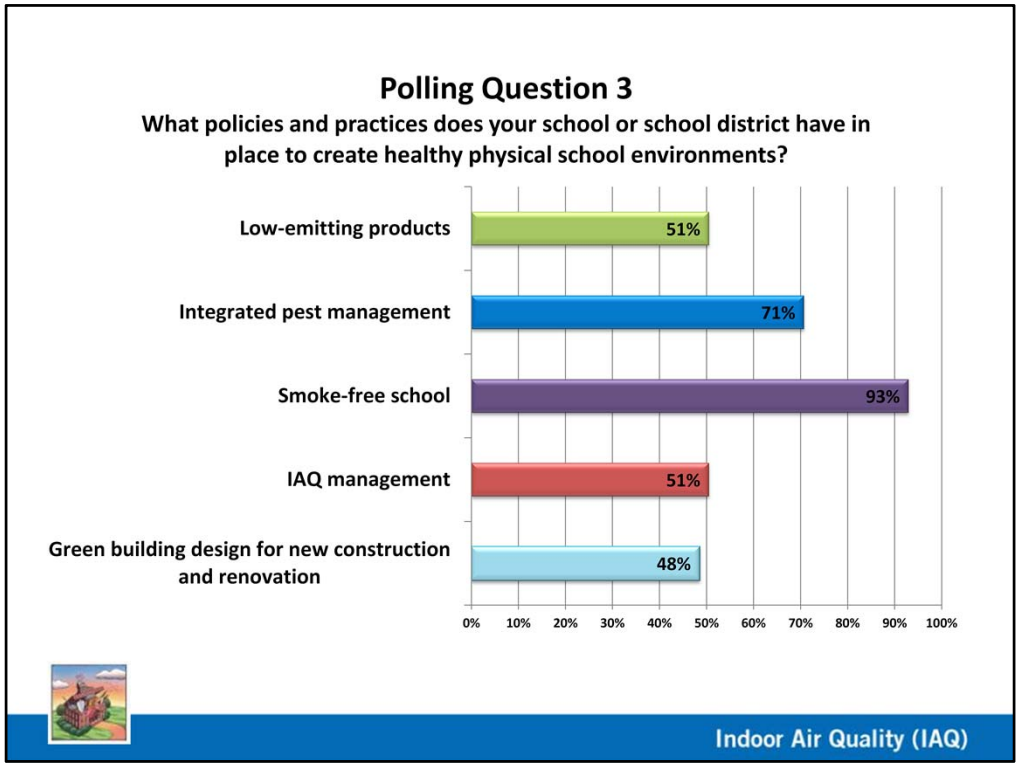


SHERRY EVERETT JONES:
Overall, health-promoting policies and practices are definitely alive in our nation's schools. Many good things are happening and improvements are taking place; that's great. But not all state and district policies and practices match our vision for what we should be doing for kids. It seems clear that we still have a lot of work to do.

I think we need to view these data as a challenge and think about what can be done to ensure that our children go to learn at healthy and safe places. CDC and EPA have a great partnership that supports gathering important data about school policies and practices at the state, district and school level, and we use these data to develop and disseminate resources schools can use within the constraints of their tighter budgets. Our goal is to make your job easier. We would love your feedback. With that, let me turn it back over to Brenda so she can share her thoughts before questions.

BRENDA DOROSKI:
Terrific! Thank you so much, Sherry. This was great information. I think folks are going to have a lot of ways that they will be able to use this in their programs. We echo the thoughts that you had just shared on the terrific progress that school districts have made across the country, and that there's still much more to do to

really meet our vision of clean, healthy schools; all schools. We're excited to be working with CDC and our other federal partners and state and local partners to help school districts make this happen.



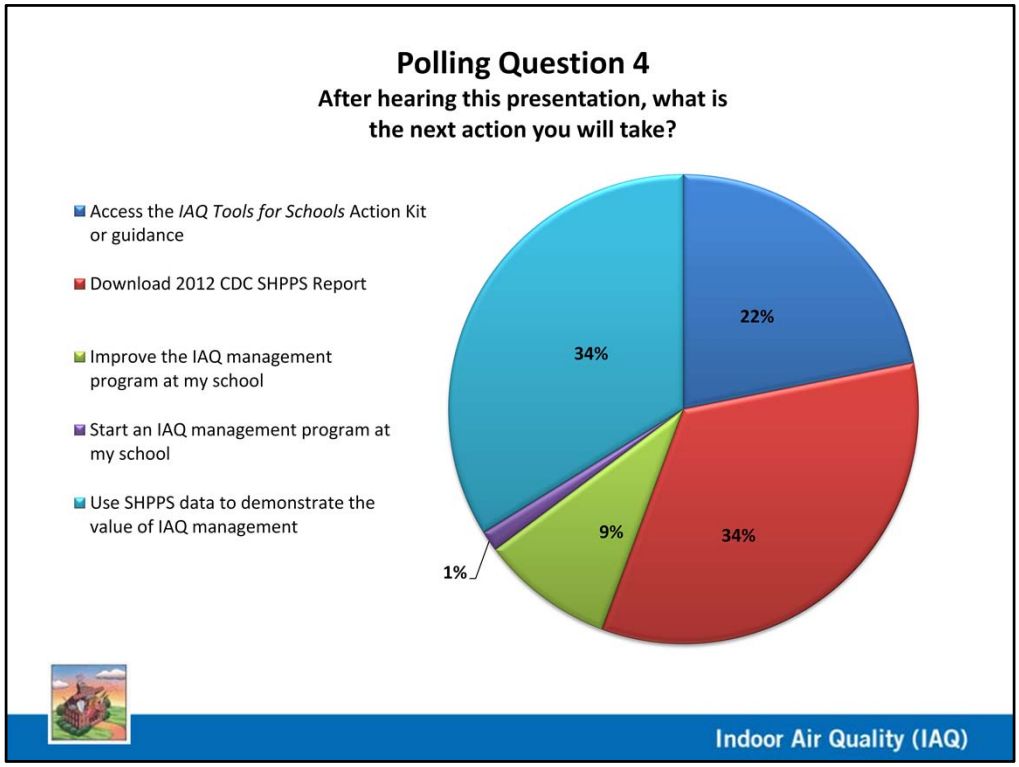
BRENDA DOROSKI:
Before we move on to the question-and-answer session here, we wanted to take another polling question. Now that you've heard the data from SHPPS, we're interested—for those of you that are on the phone—we'd like to know what policies and practices does your school or school district have in place to create healthy, physical school environments? We would like to compare that with the data that we saw.

I realize since we have quite a few people on the phone that are from federal agencies, you won't be able to answer this question. For those of you that are with state and tribal programs, those of you that are at school districts or in schools, we're hoping you'll be able to share with us what are some of the policies and practices you have in place. You're able to select more than one of these options; unlike the previous polling questions where you could just select one, you can select multiple answers here.

We are interested to hear all of the policies and practices you have in place. I would like to give it a few more seconds here so we can have everybody have an opportunity. For those of you that this applies to your work, we'd like you to respond. All right, I think we can go ahead and close out the poll.

Oh, this is terrific! So for those of you on the call, definitely the highest percentage, 88% of you, have a smoke-free school policy, so that's terrific. We heard from Sherry how I think we were at about 66% nationwide, and we really want to get that to 100%. Terrific to see that about 50% of you have IAQ Management programs and, again, that mirrors the SHPPS data.

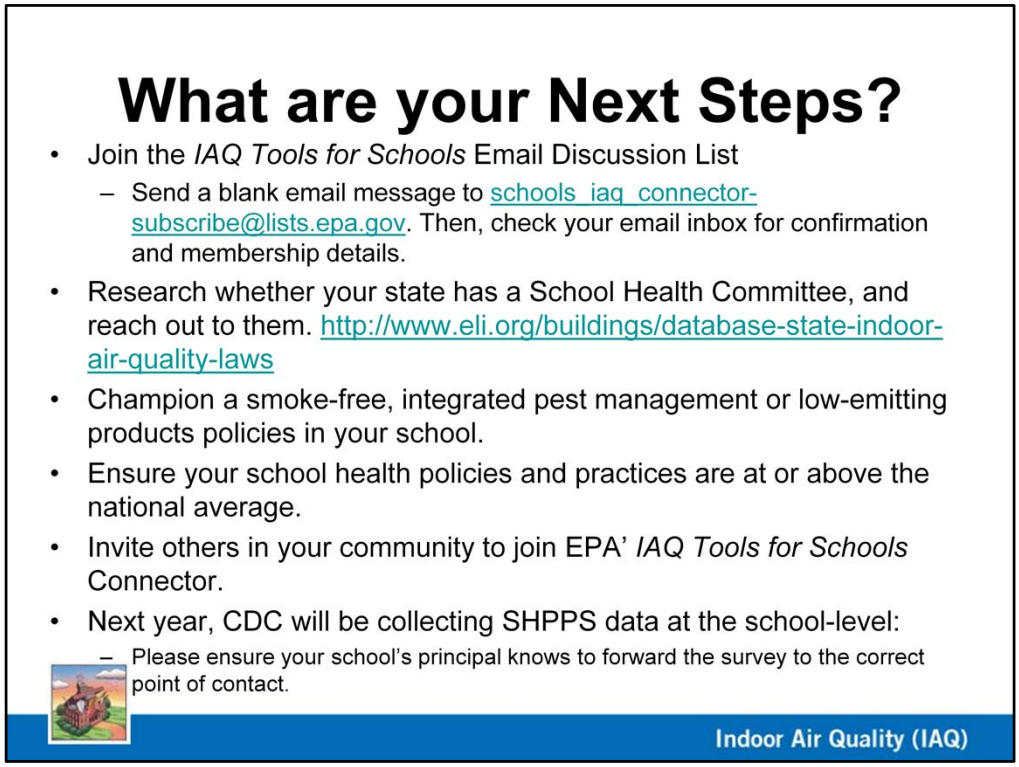
It's almost 70% of you that are doing integrated pest management, which is fantastic. Low-emitting products, about 50%; same as green building design for new construction and renovation. It looks like we have a little bit more work still to do, and I think our new EPA Energy Star guidance on renovation and building upgrades is, hopefully, going to help us get there on the new construction and renovation piece. We'll see what else we can be providing for the low-emitting products and continue our training and technical assistance on IAQ Management.



BRENDA DOROSKI:
I'll ask one more polling question here, and this is for everyone on the call today. We really want to know—after hearing about the SHPPS data, after hearing this presentation about the *Indoor Air Quality Tools for Schools* Action Kit and guidance: What is the next action you will take for your program? Again, this can be everyone, not just folks that are in a school district or school, but even those of you that are with the federal, state and tribal programs.

Will you go back and really take a look at this *IAQ Tools for Schools* Action Kit, hopefully start an IAQ Management program, either at your school or in your state, working with others? Will you improve the IAQ Management program that's already there? Will you download the SHPPS report? Or use this data to demonstrate the value of IAQ Management?

This one is going to be kind of the first action you'll take. We hope you're going to take all of these actions, but if you would let us know: What's one action you will take? All right, close out the poll; terrific! This is exactly what we were hoping to see. We got about a third of you that are going to go to the report and then use the report and access the *IAQ Tools for Schools* Guidance. So this is terrific!



BRENDA DOROSKI:
As you're thinking about your next steps, we have a couple of other offers and requests here we'd like to make. We'd like to ask you to please join the *IAQ Tools for Schools* email discussion list. This is a moderated account, and this is an opportunity for you to connect with other schools and school districts across the country.

If you have a question, if you need something, if you're looking for a resource, if you're looking for another school that has experience for this specific topic, you can join this email discussion list and really get information from us, but also get information from other schools that could be helpful in your program.

We're also hoping that we're offering you a resource here that is from the Environmental Law Institute. This is an organization that we work with, and they've compiled a great database. We've provided the link here and this will—if you're interested to see if your state has a school health committee—this will give you information specific to your state. You can reach out to them to see how you might be able to be a part of that, ask what they do, what's on their agenda this year, what they're hoping to achieve, and how you can be a part of that.

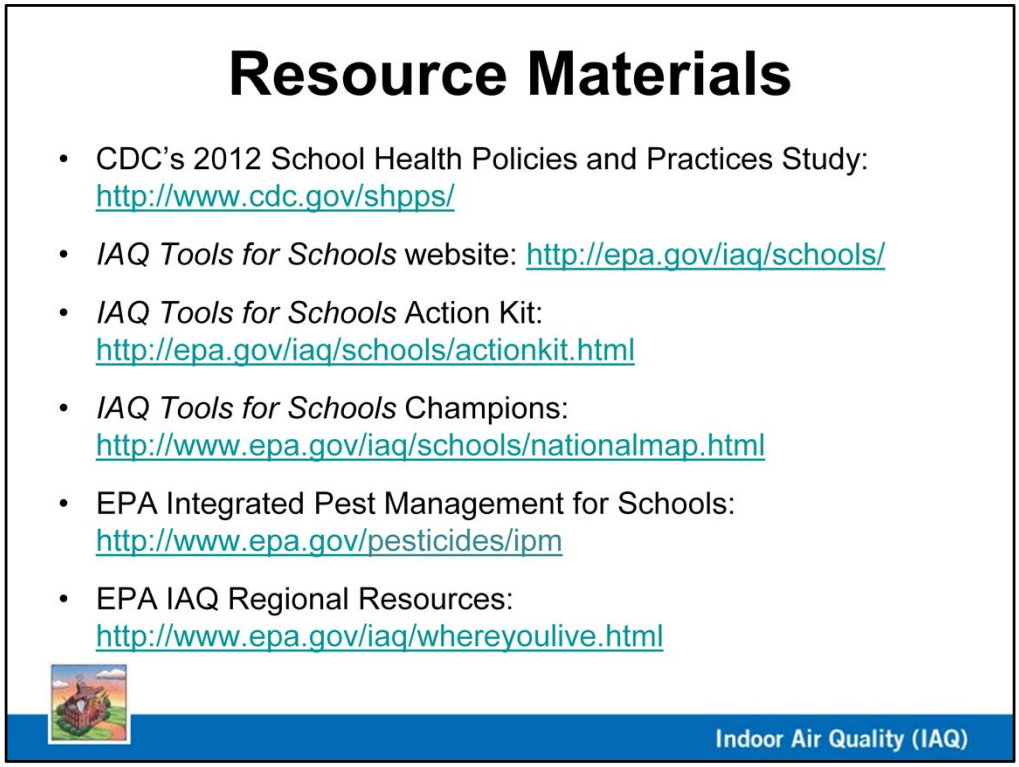
As I already mentioned, we're hoping you'll be championing a smoke-free school

environment, that you'll be working to have integrated pest management be the standard of practice for your school district, and that you'll be working to have low-emitting products and policies implemented in your school.

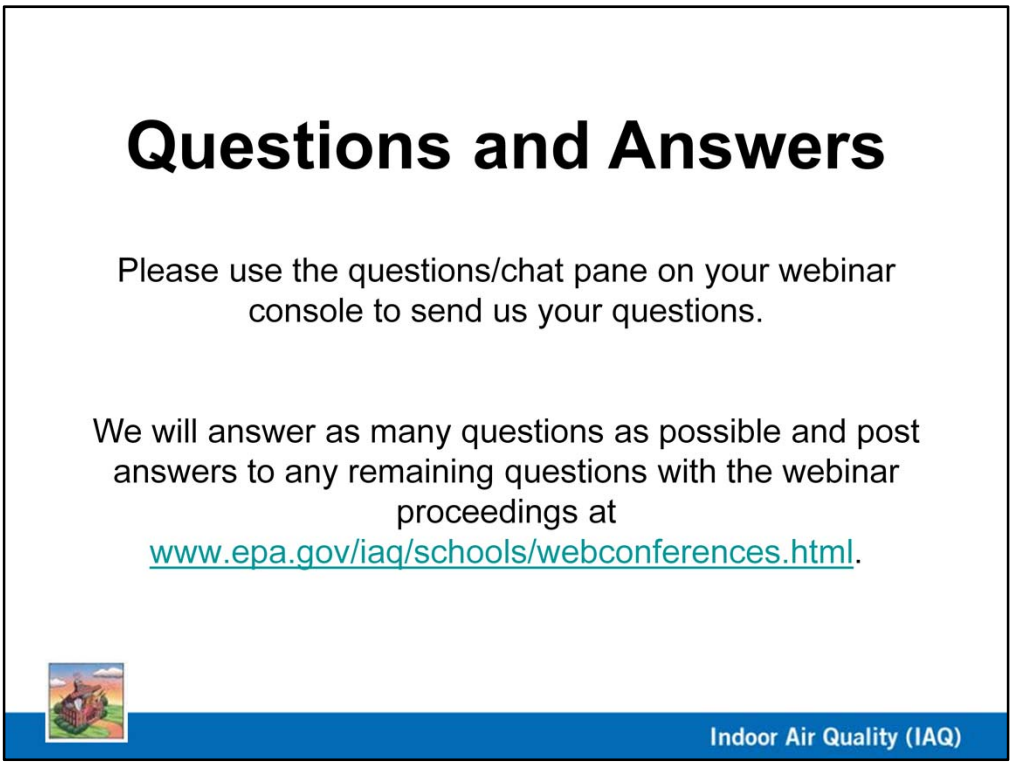
We'd also like to make sure that you are aimed at making sure that your school health policies and practices are at or above the national average. You can see here what is the national average. You can be sharing this with your superintendents and administrators and really using that as a selling point to say we need to be doing these practices and having these policies because these are common practice now across the country.

If you would also reach out to others in your community, invite them to join EPA's *Indoor Air Quality Tools for Schools* Connector, and you can put them in touch with our resources, make sure that they're aware of the guidance; that would be terrific.

Finally, next year, CDC will be collecting SHPPS data at the school level. I think there could be some work for you to do in advance of that to really let your school principal know that this is going to be coming out and that you want to make sure your school's responding to that. We'll be providing some marketing about that and let you know when that's going to be going out so you can help ensure that your school is a part of it.



BRENDA DOROSKI:
On the next slide, we've got some of the resource materials here. You can see in your chat console that you'll see some of these links. If you want to open them up now and see them, you'll also have access to this when we post the proceedings from the webinar. Here is the direct link to the CDC SHPPS, our website, our kits, other *IAQ Tools for Schools* champions. These are programs across the country that are happy to serve as mentors to share their experiences with you. We have information from our integrated pest management program here at EPA and some of our regional resources as well. So there's a lot here for you to take advantage of.



BRENDA DOROSKI:

At this point, I will go ahead—we'll turn it over to the questions and answers. Many of you have been typing in questions as we've gone along. Now is another opportunity for you to type in a question. I'm going to read out the question and then call upon one of our folks either here in the room or on the webinar to answer the questions.

The first question I wanted to ask was actually for Sherry, and it was about whether or not you reached out to tribal organizations, or what efforts did you make to include tribal nations in the SHPPS?

SHERRY EVERETT JONES:

At the state level, it was the state education agencies and the District of Columbia; and at the district level, there may have been some tribal jurisdictions that were included because of the nationally representative samples. We didn't specifically subset any particular group, but it's likely that a school run by a tribe, if it was a public school district, would be included.

BRENDA DOROSKI:

Thanks, Sherry. And it'd be great to have a conversation with you after the webinar about what we might be able to do in the future as you are doing to ensure the tribal nations are aware, not just now of the results, but of the survey and how they can be working perhaps with their state to make sure that their schools are represented in the surveys. So that'll be a great conversation I think for us to be having.

The next question I have here is: When will the next SHPPS be administered? I think you've covered that in your presentation, but if you could just go over that a little bit again; kind of what's the next step and what's the time frame?

SHERRY EVERETT JONES:
We're in the school right now for the school data collection. Again, that's a nationally representative sample so the surveys won't go out to every single school. It's a nationally representative sample of schools. The plan for the future is, assuming that the funding is available, is that in 2016 will be the next survey that will be of school districts. We will not include state level in 2016, and then in 2018 will be the next school data collection.

BRENDA DOROSKI:
Terrific. Thank you. Our next question was whether or not the EPA *Tools for Schools* Action Kit can be used in a college environment effectively. The answer to this is yes. We find many of the same conditions on college campuses as other large school facilities. You can have lots of students, a lot of the same/other environmental conditions. So it definitely can be used and has been used on college campuses. I encourage you to do that.

We've also found that it has been used in some day care facilities. Sometimes things need to be adapted, and that's fine. There are lots of things that can be adapted in the kit. That is another opportunity there.

Our next question is for Sherry, about the IPM data on how districts required schools to inspect indoors and outdoor grounds at various time intervals. Do you know if this was for the 12-month calendar or during the school year, September through May? Given that there are year-round schools now, versus the traditional calendar schools, what do the data represent?

SHERRY EVERETT JONES:
Here is exactly how the question was worded: How often are schools in your districts required to conduct a campus-wide inspection for pests such as ants, mice or rats? For the purpose of this question, campus-wide means inside the building and on the school grounds, so we did not specify whether or not this school would be year-round or not. Of course, the need to inspect doesn't disappear just because it's summer vacation.

BRENDA DOROSKI:
Yes, that's a great point, with so many schools offering summer school or being used for other purposes during the summer. Sherry Glick, from our IPM program, do you have thoughts to add to the frequency and the year-round nature of the need to be doing inspections?

SHERRY GLICK:
Yes, hi. I have to go right along with what Sherry says—Sherry Everett Jones from CDC said it's very important. Just because kids aren't there, it doesn't mean that pests are going to stay away. It is really important to keep up the inspections during the entire school year. You might have less pest pressures when kids aren't there, when kids and teachers aren't bringing foods and other things to attract pests, like drippy faucets and such. It is important that you do it on a regular basis. And that's all I have to add right now.

BRENDA DOROSKI:
Terrific. Thank you, Sherry. We have another one here for EPA, and that was around the six key drivers and if you could share just a little bit about how these were developed. I'm going to turn that over to my colleague, Michele Curreri.

MICHELE CURRERI:
Hi, everyone. Yes, see the six key drivers, the Framework for Effective IAQ Management, along with the technical solutions, were born out of and designed from information that we gleaned from thousands and thousands of *IAQ Tools for Schools* award winners, from our Motto of Sustained Excellence Award winners to our Excellence Award winners.

Looking through their award-winning programs, we were able to see things that showed up in all of these award-winning programs. That is where we came up with the framework of organize, communicate, assess, plan, act and evaluate, and then the six technical solutions.

BRENDA DOROSKI:

Terrific. Thank you, Michele. Sherry, we have another question here. It was asking for just a little bit more information about the composition of your data pool. For example, the size of the school districts. When you collected this data, did you break it down by the size of the school district?

SHERRY EVERETT JONES:
I think the question is did we stratify?

BRENDA DOROSKI:
Stratify, yes.

SHERRY EVERETT JONES:
Yes, it was a complex sample design so that we were careful to ensure that we didn't just have large school districts or just have rural districts. It was designed to be nationally representative so that would include all different kinds of schools all over the country.

BRENDA DOROSKI:
Terrific. Thank you. The next one is for us here at EPA. When they talk about compulsory or regulatory policies towards indoor air quality and pollutants for schools or the schools have to follow, and *Indoor Air Quality Tools for Schools* guidance is voluntary guidance. We provide this guidance along with training and technical assistance for schools and school districts; it is not a regulatory program.

There are standards available, ASHRAE standards for instance, for ventilation, and those standards are available for schools, but the EPA guidance is voluntary. Our new guidance that we'll be putting out linking energy efficiency and indoor air quality is also voluntary guidance.

I believe our IPM program, Sherry Glick, that is also voluntary guidance for schools, correct?

SHERRY GLICK:
That's correct.

BRENDA DOROSKI:
Right. We can do a little bit of research to see what else we might be able to find to address this question, but certainly all of what we presented here today in terms of anti-idling programs, etc., those are all voluntary guidance.

We had a question here, I'm not sure this is in SHPPS, Sherry, so I'll just ask the

question and you can let us know. Do we know how many schools have a policy to inform parents when there is an IAQ issue at a school? Was that covered at all in SHPPS?

SHERRY EVERETT JONES:
SHPPS did not ask that question.

BRENDA DOROSKI:
I don't believe we have a way to know the answer to that question, either. Again, we look at our award winners and we look at some of the best practices to see how they've addressed that. We certainly provide information on communicating with the community, with parents and teachers and how important it is. While you're doing your assessments and after you've done your assessments, to be communicating the results. There are some great examples in the framework and the action kit to do that. We will provide links to that.

We are at about 2:05 p.m. I think we're going to try to take maybe one or two more questions while we have everybody here on the phone. Here's a question for you, Sherry. We had someone ask: Is the physical school environment questionnaire available online to review for research purposes? I think someone is interested to see the questionnaire that you have done here, and can they access that?

SHERRY EVERETT JONES:
If anybody wants to, they can go to the www.cdc.gov/shpps website. On the left-hand side, there's a link to questionnaires and data. The physical school environment was a module, like a component within the healthy school environment questionnaire. You want to pull up the healthy and safe school questionnaire to get to the physical school environment questions. Also included on our website are all the data files, so that anybody who wants to can download the data and use it in any way they want to—public use.

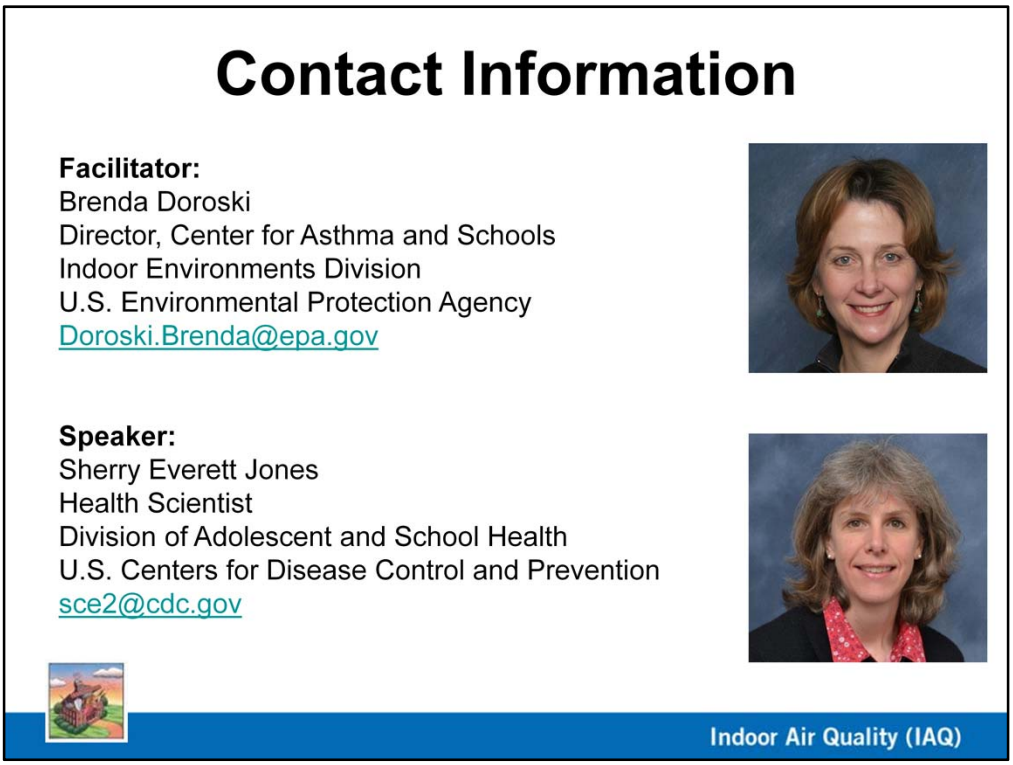
BRENDA DOROSKI:
Terrific. Another question for you, Sherry, and I know you've perhaps addressed this but not specifically in what you said about how this is a representative sample. The question is: Were Head Start Programs included in the responses? Would they be included in this data?

SHERRY EVERETT JONES:
Remember this was not a school-level data collection, it was state and district. So the answer is not exactly. However, if a district oversees a preschool kind of school-like environment. It really was geared, though, to from elementary to high school.

BRENDA DOROSKI:
OK. Terrific. I think we have just one last question. That is actually a question for us. Someone was interested to know how many people were participating on the webinar here today. We had about 230 participants on the webinar. Approximately 500 people registered for the webinar, and so we were very pleased to have more than 230 folks on the call today.

We will take time to answer the remaining questions and put them up with the proceedings. We'll send you an email in a couple of weeks letting you know that the PDF of the presentation is available online and the question-and-answer document is also available. I'd like to thank Sherry Everett Jones for sharing the information with us today on SHPPS.

We're very excited to be partnering with CDC. This is a terrific validation of all the work that you're doing out in the field and all the work that we're doing to try to support that to create healthy indoor environments in schools. We've made some great progress, and we want to keep going so that we've got all of the schools in the country really with a clean and healthy learning environment for the students and the staff.



BRENDA DOROSKI:

I want to thank Sherry. Our information is here. Feel free to contact us and, definitely, please take a few minutes to provide us your feedback on the evaluation form and offer ideas for upcoming future topics that you'd like to learn more about. I want to thank everyone for participating today, and at that point, we will close the webinar. Thank you.